Section A-Research paper



Comprehensive Review of Patient-Centered Metrics and Their Significance

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Abstract

An important component of patient-centered care is the standard of healthcare services. Patients' perspectives and experiences are the basis for patient-centered metrics (PCM), which are one way to gauge the quality of care. This covers patient experience metrics, patient-reported outcomes, and surveys of patient satisfaction. These measurements give useful information about how well healthcare services work and serve as a foundation for quality improvement. Even though PCM have many advantages, they also have drawbacks and implementation difficulties. Examples include the patient's own expectations and biases, which may have an impact on patient satisfaction surveys due to factors beyond the healthcare providers' control. Additionally, gathering and examining PCM can be time- and resource-intensive. Additional quality metrics, such as clinical quality metrics, process quality metrics, outcome quality metrics, and safety quality metrics, provide additional information about the standard of care delivered by healthcare organizations. These metrics evaluate variables like mortality rates, readmission rates, complication rates, access to care, and cost of care. PCM have been criticized for their narrow scope and for missing important aspects of healthcare quality, according to critics. Nevertheless, responses to these criticisms indicate that PCM is still crucial for ensuring that healthcare services are in line with patients' needs and preferences. A comprehensive strategy incorporating PCM and other quality metrics is needed to evaluate the caliber of hospital care. This strategy can assist healthcare organizations in delivering high-quality, patient-centered care that satisfies patients' expectations and needs.

Keywords: *patient-centered metrics, quality of care, patient satisfaction surveys, patient-reported outcomes, healthcare access, healthcare cost*

I. Introduction

Measuring the caliber of hospital care is a necessary step in ensuring that patients receive the best care possible. Utilizing quality metrics, hospitals and healthcare providers' performance is assessed and insights into areas that could be improved are provided. Another advantage of using quality metrics is the identification of best practices and areas of excellence that can be shared across healthcare

organizations. Process measurements focus on the actions made during the delivery of care, such as the use of evidence-based practices and the completion of specific tasks. Patient survival is one example of an outcome measure that evaluates the results of treatment. [1-3].

Utilizing data and analytics to evaluate performance and pinpoint areas for development is necessary to gauge the caliber of hospital care. Patient surveys, electronic health records, and administrative data are some of the data sources. Healthcare providers can make data-driven decisions about how to improve care delivery by using analytics tools to help identify trends and patterns in the data. The process of assessing the caliber of hospital care is ongoing, and it calls for a dedication to ongoing development. To ensure that patients receive the best care possible, healthcare providers must be willing to evaluate their performance and make adjustments as necessary. [4-5]

II. Patient-Centered Metrics

To assess how well healthcare is delivered from the patient's perspective, a set of metrics known as PCM is used. These measurements provide crucial data on the caliber of care provided by healthcare organizations and are used to determine how satisfied patients are with their overall experience and care. PCM are an essential component of quality improvement programs and can improve patient outcomes while reducing healthcare costs.

Patient-centered measures (PCM) include things like patient satisfaction polls, patient-reported outcome measures, and patient experience measurements. A few patient experience metrics that are assessed using these indicators include the patient's capacity to participate in healthcare decision-making, communication with healthcare professionals, and hospital comfort. Surveys of patient satisfaction are frequently used as an evaluation tool. Since PCMs offer a patient-centered method of evaluating the quality of healthcare, their use is crucial. PCM also enables healthcare organizations to compare their performance to local, regional, and global norms and pinpoint areas that need improvement. PCM has limitations, though. Because of biases like social desirability bias, they might not accurately reflect the technical caliber of the care given. The value of other quality measures, such as clinical quality measures and safety measures, may be overlooked if PCM is used as the only indicator of healthcare quality. [6-7]

2.1 Examples of PCM

1. Patient Satisfaction Surveys:

Surveys of patient satisfaction are used to gauge how satisfied individuals are overall with their experiences receiving medical care. These questionnaires often include a number of questions that are intended to evaluate many facets of the patient experience, including interactions with healthcare professionals, the responsiveness of hospital staff, and the comfort of the hospital setting. There are many ways to administer patient satisfaction surveys, including online, via mail, or over the phone. Patient input about the calibre of care they received is provided by patient satisfaction surveys, which are a crucial tool for healthcare organisations. The feedback is then used to enhance patient care and pinpoint opportunities for development within the healthcare system. For instance, if patients repeatedly express displeasure with the way healthcare providers communicates, the organisation can produce

2. Patient-Reported Outcomes (PROs):

Patient-reported outcomes are a collection of measurements used to assess patients' health and functional abilities. PROs are often examined using standardised questionnaires completed by the patient. These questionnaires ask patients about their symptoms, quality of life, and functional status. PROs are significant because they provide valuable information regarding the patient's perspective on their health status and treatment outcomes. By reviewing PROs, healthcare organisations can find areas for improvement in patient care and adjust therapies to the individual needs of each patient. For

example, if patients repeatedly express difficulty with everyday chores, healthcare personnel can provide. [8-9]

3. <u>Patient Experience Measures:</u>

Patient experience measurements are used to assess how satisfied patients are with various areas of healthcare delivery. These measurements often assess the patient's view of communication with healthcare personnel, the hospital environment's comfort, and the patient's ability to participate in decision-making regarding their care. Patient experience metrics are often gathered through standardised surveys and provide useful information about the patient's assessment of the quality of care they got.

Patient experience measures are significant because they provide input from patients regarding the quality of care they got. This feedback is utilised to improve patient care and identify improvement opportunities within the healthcare organisation. For instance, if patients repeatedly express discontent with the hospital atmosphere, the organisation can implement adjustments to ameliorate the situation. [10-11]

III. Significance of PCM

It is impossible to overstate the value of PCM in healthcare. PCM are essential for analyzing the efficacy of healthcare interventions and assessing the standard of care provided. By tracking the patient experience and satisfaction with care, healthcare organizations can identify areas for development and tailor treatment to suit the unique needs of each patient. Since quality directly affects patient outcomes and satisfaction, it is crucial in healthcare settings. Patients receive the proper treatment, medication, and care they need when they receive quality care, which is ensured. Additionally, it aids in lowering readmission rates, preventing medical errors, and enhancing patient safety. Better patient outcomes, a better patient experience, and lower healthcare costs are all brought about by high-quality care. Healthcare facilities that put quality first draw in more patients, enhance their reputation, and win the support of the local population. Quality care also guarantees that medical professionals have a fulfilling career and can give their patients better care.

Service responsiveness is also essential because it shows how quickly and skillfully healthcare providers respond to patients' needs and concerns. This can involve things like prompt scheduling, timely test results, and patient-responsive communication. Another essential element of high-quality healthcare is documentation, which is crucial for efficient provider-to-provider communication and care coordination. Furthermore, it makes sure that crucial patient data is recorded and readily available to medical professionals as required. For the provision of high-quality care, physician and staff performance is also crucial. This includes both interpersonal and communication skills in addition to clinical knowledge and abilities. Teamwork and collaboration among staff performance. Important to providing coordinated and efficient care, and they are also part of staff performance. Importance of quality in healthcare centered are shown in the figure 1.

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Fig 1: Importance of quality in healthcare centered

The fact that PCM offers patients useful feedback on their treatment is one of the program's main advantages. Patients are the true healthcare consumers, and it is crucial that they feel satisfied with the treatment they receive. Healthcare organizations can learn more about the efficacy of care delivery and pinpoint areas for improvement by measuring patient satisfaction, patient-reported outcomes, and patient experience. PCM are crucial for advancing patient-centered care. Focusing on the needs and preferences of the patient is known as patient-centered care.

The ability of PCM to assist healthcare organizations in locating inequities in the provision of healthcare is a significant additional benefit. The development of interventions to address care disparities and enhance healthcare equity can be aided by the information provided. [12-14]

A. Benefits of using PCM

PCM have numerous benefits for healthcare organizations, patients, and the broader healthcare system. These metrics provide valuable insights into the patient experience, satisfaction with care, and outcomes. Below are some of the key benefits of using PCM: [15-17]

- 1. *Improved Patient Outcomes*: PCM provide valuable information about patient outcomes, including mortality rates, readmission rates, and complications. By analyzing this information, healthcare organizations can identify patterns and trends that can be used to improve patient outcomes. This information can be used to develop evidence-based interventions and quality improvement initiatives that address specific patient needs.
- 2. *Enhanced Patient Satisfaction*: A patient's perspective of communication with healthcare professionals, the physicians' response to their requirements, and the entire experience can all be measured using PCM. Healthcare organisations can pinpoint areas for improvement and modify care delivery to suit the needs and preferences of specific patients by analysing this data.
- 3. *Improved Quality of Care*: PCM can be used to gauge how well healthcare organizations are doing at providing care. This data can be used to pinpoint care delivery weaknesses, create evidence-based interventions, and monitor advancement toward quality improvement objectives.

- 4. *Increased Efficiency*: PCM can be used to identify inefficiencies in care delivery and promote more efficient use of healthcare resources. This can include reducing unnecessary testing, decreasing hospital length of stay, and improving care transitions.
- 5. *Healthcare Equity*: PCM can be used to identify disparities in care delivery across different patient populations. This information can be used to develop interventions to address disparities and improve healthcare equity.

B. Limitations of using PCM

While PCM have numerous benefits, they also have some limitations that must be considered. Below are some of the key limitations of using PCM: [18-20]

- 1. *Subjectivity*: PCM are based on the subjective experiences and perceptions of patients. This means that the information collected may not always accurately reflect the quality of care delivered by healthcare organizations.
- 2. *Limited Scope*: PCM typically focus on specific aspects of the patient experience, such as communication with healthcare providers or satisfaction with care. While these metrics provide valuable information, they may not capture the full complexity of the patient experience.
- 3. *Sample Bias*: PCM are often collected from a sample of patients, which may not be representative of the broader patient population. This can result in biased data that does not accurately reflect the experiences of all patients.
- 4. *Lack of Standardization*: PCM are often developed by individual healthcare organizations or researchers, which can lead to a lack of standardization in how they are measured and reported. This can make it difficult to compare data across different healthcare organizations or patient populations.
- 5. *Resource Intensive*: Collecting and analyzing PCM can be resource-intensive, requiring significant staff time and financial resources. This can be a barrier for smaller healthcare organizations or those with limited resources.

These limitations include subjectivity, limited scope, sample bias, lack of standardization, and resource intensity. It is important for healthcare organizations and researchers to carefully consider these limitations when using PCM and to ensure that they are collecting and analyzing data in a rigorous and systematic manner.

C. Challenges in implementing PCM

The implementation of PCM can be challenging for healthcare organizations due to a variety of factors. Below are some of the key challenges that healthcare organizations may face when implementing PCM:

- 1. *Data Collection*: Collecting PCM can be challenging, as it requires the implementation of systems and processes for collecting and analyzing data. Healthcare organizations may need to invest in new technology or hire additional staff to collect and analyze PCM.
- 2. *Staff Training*: Healthcare providers and staff may require training on how to collect and interpret PCM.
- 3. *Patient Engagement*: Collecting PCM requires engagement with patients and their families. Healthcare organizations may need to develop strategies for engaging patients in the data collection process, such as providing incentives or using technology to collect data remotely.
- 4. *Privacy and Confidentiality*: Collecting PCM requires careful attention to privacy and confidentiality. Healthcare organizations must ensure that patient data is collected and stored in a secure manner, and that patient privacy is protected throughout the data collection process.

5. *Reporting and Accountability*: Healthcare organizations must be able to report on PCM and use this information to drive quality improvement. The implementation of PCM can be challenging for healthcare organizations due to a variety of factors. These challenges include data collection, staff training, patient engagement, privacy and confidentiality, and reporting and accountability. Healthcare organizations must carefully consider these challenges and develop strategies for overcoming them in order to effectively implement PCM and improve the quality of care for patients.

Benefits, Limitations and Challenges of PCM are shown in the figure 2.



Fig 2: Benefits, Limitations and Challenges of PCM

IV. Other Quality Metrics

In addition to PCM, other quality metrics are used to assess the quality of healthcare. Clinical outcomes are one such metric that measures the effectiveness of medical treatments by evaluating mortality rates, readmission rates, and complication rates.

Another important metric is safety measures, which assess the safety of patients in healthcare settings. Rates of hospital-acquired infections and medication errors are examples of safety measures. These metrics help healthcare organizations identify areas where patient safety can be improved and help prevent adverse events. Access to care metrics evaluate how easily patients can access healthcare services. These metrics measure appointment wait times and emergency department wait times, among other things. By identifying barriers to care, healthcare organizations can work to improve access to care for all patients. Cost of care metrics assess the cost of healthcare services, such as the cost per hospital stay or the cost per procedure. [21]

Finally, process measures assess the quality of the processes used to deliver healthcare services. Examples of process measures include the percentage of patients who receive appropriate preventive care or the percentage of patients who receive timely follow-up care after hospitalization.

A. Benefits of using PCM

Metrics used to assess the standard of clinical care given to patients are called clinical quality metrics. These measurements often evaluate patient safety, clinical outcomes, and the efficacy of medical procedures and therapies. Mortality rates, readmission rates, complication rates, and hospital acquired infection rates are a few examples of clinical quality indicators. For healthcare organisations to improve the standard of patient care they offer, clinical quality indicators are crucial. Healthcare professionals can determine their strengths and areas for improvement by measuring the clinical quality of their care. Using this data, focused interventions can be created to increase patient outcomes and safety, lower healthcare organisations in adhering to legal requirements and professional norms. Maintaining certification, accreditation, and licensure as well as securing payment for services rendered depend on compliance with quality measures. It is crucial to remember that clinical quality measures can have drawbacks. For instance, not all measurements may be applicable.

B. Limitations of using PCM

Process quality metrics are measurements that rate the efficiency of the processes applied in the delivery of medical care. With the aid of these metrics, healthcare providers are assessed on how closely their patient care adheres to accepted clinical norms and best practices. Process quality indicators include things like the proportion of patients who receive adequate preventative care, the proportion of patients who receive prompt follow-up care after being hospitalized, and the proportion of patients who receive proper medication management. For healthcare organizations to raise the caliber and consistency of patient service, metrics for process quality are essential. By assessing the quality of the process, healthcare professionals can identify areas for process enhancement that will ensure patients receive the best care possible. Process quality metrics are also frequently used in healthcare quality improvement initiatives, such as the Institute for Healthcare Improvement's Model for Improvement. These programs concentrate on finding areas for development and creating interventions to enhance the processes and results of patient care.

Process quality metrics can, however, also have drawbacks, it is important to remember. For instance, some metrics might not be appropriate for all patients or clinical situations. Additionally, some metrics might not accurately reflect the specific needs or preferences of each patient, in which case PCM can be helpful.

C. Outcome quality metrics

An outcome quality metric is a type of quality metric used in healthcare that evaluates the effectiveness of interventions and treatments. These metrics, which include the death rate, readmission rate, and complication rate, assess the effectiveness of medical care. A key tool for improving patient care, outcome metrics provide insightful data on the overall effectiveness of healthcare delivery.

One of their primary advantages is that outcome quality measures provide a clear indication of the effectiveness of medical interventions. Monitoring patient outcomes enables medical professionals to identify areas where care delivery could be enhanced. For instance, a high readmission rate for a particular illness in a hospital may be a sign that the follow-up care is inadequate.

The fact that outcome quality metrics paint a clear picture of the overall standard of care is another benefit of these metrics. Outcome metrics measure how those processes ultimately affect patient outcomes, as opposed to process metrics, which rate the effectiveness of particular healthcare delivery methods. Medical professionals can use outcome metrics to pinpoint areas where the standard of care needs to be raised and work to implement the necessary changes.

However, there are some restrictions on outcome quality metrics as well. One possible drawback is that they might not always give a complete picture of the level of care. For instance, an outcome metric like the mortality rate might not consider elements that can affect the outcome, like the severity of the condition being treated or the comorbidities of the patient.

Metrics for outcome quality also have the drawback of being susceptible to influences from sources beyond the healthcare providers' control. For instance, variables outside of the hospital's control, such as the accessibility of follow-up care in the neighbourhood or the socioeconomic status of patients, may have an impact on the readmission rate for a hospital.

D. Safety quality metrics

The term "safety quality metrics" refers to measurements that assess patient safety in healthcare environments. These measurements help identify areas for patient safety improvement and help prevent unfavorable outcomes. Safety quality metrics are an essential component of quality improvement initiatives because they enable healthcare providers to evaluate the effectiveness of their safety policies and procedures.

Several common safety quality measures include pressure ulcer rates, medication errors, medication errors, and hospital acquired infection rates. These measurements can help healthcare organizations identify areas where safety can be improved and set up targeted initiatives to reduce the frequency of negative incidents.

One of the most frequently used safety quality criteria is the frequency of infections contracted while hospitalized (HAIs). Patients who are receiving medical care in a hospital setting are susceptible to infections known as HAIs. HAIs include, among others, infections of the urinary tract, surgical sites, and bloodstreams. Healthcare organizations use HAI rates to evaluate the effectiveness of their infection control procedures and identify potential improvement areas. Drug errors are yet another typical safety quality metric. Medication mistakes can happen at any point during the medication use process, from prescribing and dispensing to administration and monitoring. Medication error rates are used by healthcare organizations to assess how well their medication management practices are working and to spot areas for improvement. Fall rates and pressure ulcer rates are two additional safety quality indicators. Falls are a leading cause of hospital readmissions and can cause serious injuries like fractures and head trauma. When patients are immobile for extended periods of time, pressure ulcers, also referred to as bedsores, can develop. Infection, discomfort, and other problems can result from pressure ulcers.

V. Critique of PCM

Despite the potential advantages of PCM, their use and implementation have faced criticism and difficulties. For instance, even though a patient may express high satisfaction with a particular treatment, it may not actually result in better health. Another complaint is that social determinants of health and other variables not under the control of healthcare providers or organizations could affect PCM. Due to differences in PCM based on racial, ethnic, and socioeconomic status, this may occur. PCM collection and analysis can also be time- and resource-intensive, requiring specialized personnel and technological infrastructure. Additionally, there might be difficulties with interpreting and applying PCM, especially if these metrics are not uniformly applied across healthcare organizations or if different data collection and analysis techniques are employed. To provide a more thorough understanding of the quality of care, PCM should not be used in isolation but rather in conjunction with other quality metrics. In order to make sure that PCM are meaningful and practical for patients and healthcare professionals, there is also a need for ongoing evaluation and improvement. [22-23]

A. Criticisms of PCM

Despite the advantages of PCM, their use is also subject to some criticisms. One argument against PCM is that it can be irrational and reliant on patient perceptions, making it less accurate than other methods. Furthermore, patient satisfaction may differ based on factors such as age, gender, race, and socioeconomic status, which may limit the usefulness of these indicators for identifying potential areas for healthcare quality improvement. Another complaint is that PCM might not fully capture the scope of high-quality healthcare, especially in situations where patients might not fully comprehend their conditions or the best course of action. Additionally, some medical professionals might put too much emphasis on raising patient satisfaction levels at the expense of other crucial components of high-quality care, like clinical effectiveness or safety.

There is also concern that PCM might be applied improperly to compare healthcare institutions or providers, failing to account for variations in patient populations or the complexity of medical conditions. Finally, there is a chance that PCM will be used to reward healthcare professionals for prioritizing patient satisfaction over other crucial elements of healthcare quality, like clinical effectiveness or safety.

B. Responses to criticisms of PCM

Due to their perceived subjectivity and lack of correlation with clinical outcomes, PCM have drawn criticism. However, there are a number of responses to these objections that encourage the use and advancement of PCM.

First off, PCM are made to record details like respect, communication, and care coordination that are significant to patients and their families. Clinical outcomes might not fully reflect these aspects of care, but they are crucial for patient satisfaction and involvement in their own care.

Second, PCM can give healthcare professionals insightful feedback that enables them to pinpoint areas where patient experience and communication can be enhanced. This feedback may result in better care procedures and ultimately better clinical outcomes.

Third, there is evidence that PCM and clinical outcomes may be related. For instance, higher patient satisfaction ratings have been linked to better medication adherence and lower hospital readmission rates. [24-25].

Fourth, there is ongoing research to hone and enhance PCM, including the creation of standardized surveys and the addition of additional patient experience metrics.

Conclusion

In conclusion, PCM have grown in significance as a way to gauge the caliber of hospital care. Some examples of PCM that offer useful information on the patient's perspective of their care are patient satisfaction surveys, patient-reported outcomes, and patient experience measures. Using PCM has a variety of advantages, including better patient outcomes, increased patient engagement, and higher-quality healthcare. These metrics do, however, have drawbacks and difficulties, such as potential biases and implementation difficulties. It is significant to remember that PCM shouldn't be the only metric employed to assess the caliber of hospital care. To have a thorough understanding of the quality of care, additional quality metrics like clinical outcomes, process measures, safety measures, and cost of care metrics should also be taken into account. Although PCM have been criticized for their subjectivity, there have been responses to these criticisms, such as the use of standardized surveys and the addition of objective measures in addition to PCM. In conclusion, a comprehensive strategy that considers PCM and other quality measures is needed to assess and improve the quality of hospital treatment. Prioritizing patient-centered care and utilizing a variety of strategies can help healthcare organizations deliver high-quality, patient-centered care that meets patients' needs and preferences.

References

- 1. WHO. *Delivering Quality Health Services: A Global Imperative for Universal Health Coverage*; World Health Organization; Organisation for Economic Co-Operation and Development; The World Bank: Geneva, Switzerland, 2018; ISBN 978-92-64-30030-9.
- 2. Gardner, J.W.; Linderman, K.W.; McFadden, K.L. Managing Quality Crossroads in Healthcare: An Integrative Supply Chain Perspective. *Qual. Manag. J.* **2018**, *25*, 2–17.
- 3. Kruk, M.E.; Gage, A.D.; Joseph, N.; Danaei, G.; Garcia-Saiso, S.; Salomon, J.A. Mortality due to low-quality health systems in the universal health coverage era: A systematic analysis of amenable deaths in 137 countries. *Lancet* **2018**, *392*, 2203–2212.
- Fung, C.H.; Lim, Y.-W.; Mattke, S.; Damberg, C.; Shekelle, P.G. Systematic Review: The Evidence That Publishing Patient Care Performance Data Improves Quality of Care. Ann. Intern. Med. 2008, 148, 111–123.
- Lagu, T.; Goff, S.L.; Hannon, N.S.; Shatz, A.; Lindenauer, P.K. A Mixed-Methods Analysis of Patient Reviews of Hospital Care in England: Implications for Public Reporting of Health Care Quality Data in the United States. *Jt. Comm. J. Qual. Patient Saf.* 2013, 39, 7–15.
- 6. Al-Abri, R.; Al-Balushi, A. Patient Satisfaction Survey as a Tool towards Quality Improvement. *Oman Med. J.* 2014, 29, 3–7.
- 7. Ladhari, R. A review of twenty years of SERVQUAL research. Int. J. Qual. Serv. Sci. 2009, 1, 172–198.
- 8. Parasuraman, A.; Zeithaml, V.A.; Berry, L.L. A Conceptual Model of Service Quality and Its Implications for Future Research. *J. Mark.* **1985**, *49*, 41–50.
- Alanazi, M.R.; Alamry, A.; Al-Surimi, K. Validation and adaptation of the hospital consumer assessment of healthcare providers and systems in Arabic context: Evidence from Saudi Arabia. J. Infect. Public Health 2017, 10, 861–865.
- Shafiq, M.; Naeem, M.A.; Munawar, Z.; Fatima, I. Service Quality Assessment of Hospitals in Asian Context: An Empirical Evidence from Pakistan. *Inq. J. Health Care Organ. Provis. Financ.* 2017, 54, 0046958017714664.
- 11. Bull, C. Patient satisfaction and patient experience are not interchangeable concepts. Int. J. Qual. Health Care 2021, 33, mzab023.
- 12. Bull, C.; Byrnes, J.; Hettiarachchi, R.; Downes, M. A systematic review of the validity and reliability of patient-reported experience measures. Health Serv. Res. 2019, 54, 1023–1035.
- 13. Blasini, M.; Peiris, N.; Wright, T.; Colloca, L. The Role of Patient-Practitioner Relationships in Placebo and Nocebo Phenomena. Int. Rev. Neurobiol. 2018, 139, 211–231.
- Garratt, A.M.; Bjaertnes, O.A.; Krogstad, U.; Gulbrandsen, P. The OutPatient Experiences Questionnaire (OPEQ): Data quality, reliability, and validity in patients attending 52 Norwegian hospitals. Qual. Saf. Health Care 2005, 14, 433–437.
- Kaipio, J.; Stenhammar, H.; Immonen, S.; Litovuo, L.; Axelsson, M.; Lantto, M.; Lahdenne, P. Improving Hospital Services Based on Patient Experience Data: Current Feedback Practices and Future Opportunities. Stud. Health Technol. Inform. 2018, 247, 266–270.
- Mazurenko, O.; Collum, T.; Ferdinand, A.; Menachemi, N. Predictors of Hospital Patient Satisfaction as Measured by HCAHPS: A Systematic Review. J. Healthc. Manag. 2017, 62, 272–283.
- 17. Kingsley, C.; Patel, S. Patient-reported outcome measures and patient-reported experience measures. BJA Educ. 2017, 17, 137–144.
- 18. Tandon, A.; Murray, C.J.L.; Lauer, J.A.; Evans, D.B. Measuring overall health system performance for 191 countries. GPE Discuss. Pap. Ser. 2000, 30, 1–23.

- 19. World Health Organization. The World Health Report 2000. Health Systems: Improving Performance; World Health Organization: Geneva, Switzerland, 2000.
- KPMG International Cooperative. Through the Looking Glass: A Practical Path to Improving Healthcare through Transparency; KPMG International Cooperative: Zug, Switzerland, 2017; pp. 1–52.
- 21. OECD. Health at a Glance 2019: OECD Indicators; OECD Publishing: Paris, France, 2019. [Google Scholar]
- 22. Hurst, J.; Jee-Hughes, M. Performance Measurement and Performance Management in OECD Health Systems; OECD Labour Market and Social Policy Occasional Papers No. 47; OECD: Paris, France, 2001. [Google Scholar] [CrossRef]
- 23. NQF endorses HCAHPS patient perception survey. Healthc. Benchmarks Qual. Improv. 2005, 12, 82–83.
- 24. Greaves, F.; Laverty, A.A.; Cano, D.R.; Moilanen, K.; Pulman, S.; Darzi, A.; Millett, C. Tweets about hospital quality: A mixed methods study. *BMJ Qual. Saf.* **2014**, *23*, 838–846.
- 25. Hu, G.; Han, X.; Zhou, H.; Liu, Y. Public Perception on Healthcare Services: Evidence from Social Media Platforms in China. *Int. J. Environ. Res. Public Health* **2019**, *16*, 1273.