**JOURNAL OF SOCIAL RESEARCH DEVELOPMENT**

www.jsrd.org.pk          editor@jsd.org.pk

# COMPARISON OF SERVICE QUALITY BETWEEN PUBLIC & PRIVATE HOSPITALS: EMPIRICAL EVIDENCE FROM SAUDI ARABIA

## Yasir Hayat Mughal

Department of Health Administration, College of Public Health & Health Informatics, Qassim University, SAUDI ARABIA

| KEYWORDS | ABSTRACT |
|---|---|
| Service Quality, Patients, Public and Private Hospitals, Qassim Province, Saudi Arabia | Saudi Arabia is rapidly changing especially the health sector is making reforms to enhance service quality of the hospitals. This study aimed to investigate difference in service quality rendered by public and private hospitals in Qassim region of Saudi Arabia. This is a cross-sectional study. Quantitative research design was adopted. Primary data was collected. Non-probability convenience sampling technique was used to select the sample. Data was analyzed in SPSS. Frequency, percentage, independent sample t-test were used to analyze data. In order to check reliability and validity of the questionnaire, the Cronbach alpha and factor loadings were checked. The findings revealed that questionnaire was found reliable and valid as Cronbach alpha and loadings met threshold. Moreover, significant difference is found in service quality of public and private hospitals. The patients are found more satisfied from public hospitals service quality as compared to private hospitals in Qassim region. Policy makers can take benefits from findings of current study. Enhancing service quality would help hospitals to get competitive advantage. Moreover, future studies may use big sample size and can conduct comparative study using SERVQUAL and SERVPERF model |
| **ARTICLE HISTORY** <br><br>Date of Submission: 28-06-2023 <br>Date of Acceptance: 20-07-2023 <br>Date of Publication: 11-08-2023 | |
| | 2023 Journal of Social Research Development |
| Correspondence | Yasir Hayat Mughal |
| Email: | y.hayat@qu.edu.sa |
| DOI | https://doi.org/10.53664/JSRD/04-03-2023-01-533-541 |

## INTRODUCTION

In recent years healthcare services have been increased and their quality has also been enhanced in Saudi Arabia. In 1925 during King Abdul Aziz period in medina city 1ˢᵗ public health department was established. In 1950 government of Saudi Arabia established Ministry of Health (MoH) & after 20 years, first development plan for five years to improvise the health care services was introduced (Alumran, Almutawa, Alzain, Althumairi & Khalid, 2021). According to Almalki, Gerald and Clark

(2011) significant improvements have been observed in Saudi health care services at primary and hospital level. There are 2037 primary healthcare centers (PHCCs) and 274 hospitals which are financed by MoH; MoH is funded by government and MoH offer funds to healthcare organizations in all over the Kingdom (Alumran et al, 2021). Other government bodies such as referral hospitals, ARAMCO, hospitals of universities, and health services in Yanbu and Jubail by Royal Commission are contributing towards increasing quality of health services in Saudi Arabia. Apart from referral hospitals, teaching hospitals and Red Crescent Society are also proving services to their employees and their dependents. In this regard, during crisis and emergencies all government bodies provide the health services to all residents (Alumran et al, 2021; Alzghaibi, Mughal, Alkhamees, Alasqah, Alwheeb & Alrehiely, 2022).

According to Alumran et al. (2021); Albert, Ahmed and Damrah (2018) there are total 152 private hospitals and 274 public sector hospitals in Saudi Arabia. Besides, there are 44 quasi-government hospitals in Saudi Arabia. Also, there is 41, 852 beds capacity in public sector hospitals and 17,428 beds capacity in private hospitals and in semi quasi health sector there is capacity of 11,581. There are number of studies available which have tried to report quality of services rendered by hospitals. A good health system which helps to increase quality and obtain competitive advantage; improve patients' loyalty, health workforce productivity & efficient use of existing resources (Mosadeghrad, 2013; Akhtar, Ahmed, Sreekantan Nair, Mughal & Mehmood, 2022; Alzghaibi, Alharbi, Mughal, Alwheeb & Alhlayl, 2023). Multiple factors should be considered while gaging hospitals services quality. Measuring services quality over tangibility and intangibility is vital (Parasuraman, Zeithaml & Berry, 1985). SERVQUAL model was introduced over perspective of patients' perspective. It is a five-dimensional model. Theses dimensions are reliability, assurance, empathy, responsiveness and tangibility (Sullivan, 1993). These 5-dimensions were merged into 2-categories augmented and core services (McDougall & Levesque, 1995). This model is extensively used by researchers to explore service quality in health sector as well as other sectors consequently SERVQUAl model reliability and effectiveness is established.

H1:     There is significant mean difference in the public as well as private sector hospitals service quality.

H2:     There is significant mean difference in public & private sector patients' overall satisfaction from quality.

## LITERATURE REVIEW

Healthcare quality is defined as "delivering efficient and effective healthcare services to patients as per advanced clinical standards and guidelines which meets patients' needs" (Kalaja, Myshketa & Scalera, 2016).  In addition, Kalaja et al. (2016) claimed that patients are found highly satisfied when their perceptions exceed their expectations. Quality of services varies from offer and receive point of view. Healthcare quality can also be measured on the basis of morbidity and mortality rate, infant mortality rate. With the passage of time industry's structure has been changed and patients' role in deciding quality is given more importance. In order to survive in competitive environment service providers, have to understand needs and expectations of patients (Darzi, Islam, Khursheed & Bhat, 2023). Patients' satisfaction is one of the main factors in success of hospitals. If patients are

highly satisfied, they would like to visit the same health center again and would also recommend other to visit the hospital. In this connection, this would increase the reputation of the hospitals, and profitability and image in eyes of stakeholders. That is why hospitals have to continuously monitor their services and regularly motivate their staff to provide high quality services to patients (Ham, Peck, Moon & Yeom, 2015).

SERVQUAL model has five attributes and this model was extensively used to measure the service quality. This model is used in different industries as well as used to measure the health sector service quality (Ham et al., 2015). According to Changole, Bandawe, Makanani, Malunga and Kafulafula (2010) many researchers have found this model suitable to measure quality of services. Literature suggested that SERQUAL model is suitable to use on health industry as this helps the researchers to measure perceptions and expectations (Arab, Tabatabaei, Rashidian, Forushani & Zarei, 2012). This model helps management of hospitals to find their strengths and weaknesses. This model has five facets namely tangibility, reliability, responsiveness, assurance and empathy. An expectation of patients when met is called tangibility. Reliability refers to capability of the hospital to provide diagnosis, treatment, and other services to patients and shows interest to solve problems of patients on time. Providing correct and accurate information also falls under reliability dimension of service quality. The responsiveness means how patients perceive nurse and physicians' response. Assurance means skillfulness of physicians, nurses and privacy provided to patients during consultation and treatment, ability of health workforce to answer questions of patients falls in assurance. Empathy refers to how attentively doctors listened to patients, care for them & give enough time to patients (Owusu, Kwatemg & Acheampong, 2017).

This model has been used by researchers in the public as well as private sector hospitals in Turkey, Bangladesh, UAE, (Andaleeb, 2001; Jabnoun & Chaker, 2003; Taner & Antony, 2006; Yesilada & Direktouml, 2010; Alzghaibi et al., 2022). According to Irfan and Ijaz, (2011), the private sector hospitals are providing better services to patients as compare to public sector hospitals in Pakistan. High quality healthcare services in one of the main components of Saudi Vision 2030. Enhancing healthcare services quality not only increases profitability but productivity of health workers as well (Alumran et al, 2021). In Saudi Arabia one study with small sample size was conducted in 2013 on hospitals services quality (Al-Borie & Damanhouri, 2013). There is rapid change can be seen in Saudi Arabia in the form of digitalization therefore, this study would contribute towards developing new policies for health sector. Standard quality health services are one of the major concerns for hospitals and patients across the World. Everyone has the right to have access to healthcare with no or at minimum cost. Improving quality would result in better prices, income, and more profitability (Darzi et al, 2023). Thus, now a day's patients are more aware about their rights to quality health services. Healthy competition among public and private hospitals would also results in the better services (Dhari, Iqbal & Khan, 2020).

## RESEARCH METHODOLOGY

This study is quantitative in nature and nature of data was cross-sectional and primary. Population of study was patients from different hospitals in Qassim province. Quality was criterion variable. Predictor variables were all dimensions of SERVQUAl model. Online questionnaire was distributed

and patients completed the questionnaire after being hospitalized. Patients were assured that data would be kept confidential. Thus, 200 questionnaires were distributed out of which 145 completed questionnaires were received and used in the analysis. The non-probability convenience sampling technique was used.

## Instruments

SERVQUAL model with five dimensions were measured on four items for each construct. Therefore, there are 20 items for SERVQUAl model, four items for overall satisfaction from quality adopted from Alumran et al. (2021), and five respondents' demographic information i.e., sector, nationality, gender, education and age.

## Data Collection Method

The web based online questionnaire was distributed. Respondents were informed about aim of the study. 4-5 days were given to respondents to study and understand each item of the questionnaire and respond. In this regard, data would be kept confidential and reputation of the individuals and organizations would not be harmed. It was also made assured that this data would be only used for academic purpose.

## Data Analysis Tools & Techniques

The statistical package for social sciences (SPSS) was used to test the hypotheses. The frequency, percentage, mean, standard deviation and independent sample t-test was used to report statistical findings Field (2013).

## RESULTS OF STUDY

Table 1 presents the personal information of the respondents who have participated in the study. Results revealed that majority of respondents visited public sector hospitals 117 (80.13%) followed by private sector respondents 29 (19.87%). Moreover, most of respondents were male 99 (67.8%) and 47 (32.19%) female respondents participated in the study. respondents were also asked about nationality; it was found that 127 (86.98%) respondents were Saudi nationals while 19 (13.01%) were non-Saudi nationals. Regarding age most of respondents 125 (85.61%) belong to age of 20-3- years followed by those having age of 31-40 years i.e., 15 (10.27%) and 4 respondents belong to age of 41-50 years i.e., 2.73% and 2 respondents belong to age above 50 years i.e., 1.36% respectively. Respondents were asked about their education. 25 (17.12%) hold diploma, majority of respondents hold bachelor degree i.e., 100 (68.49%) and 16 (10.95%) hold master degree and only 5 (3.42%) held doctoral degree.

Table 1 Demographic Information

| Variables | n | % |
|---|---|---|
| Public | 117 | 80.13 |
| Private | 29 | 19.87 |
| Male | 99 | 67.8 |
| Female | 47 | 32.19 |
| Saudi | 127 | 86.98 |
| Non-Saudi | 19 | 13.01 |

Table 1a Demographic Information

| | | |
|---|---|---|
| 20–30 Years of age | 125 | 85.61 |
| 31–40 Years of age | 15 | 10.27 |
| 41–50 Years of age | 4 | 2.73 |
| Above 50 years of age | 2 | 1.36 |
| Diploma | 25 | 17.12 |
| Bachelor | 100 | 68.49 |
| Master | 16 | 10.95 |
| PhD | 5 | 3.42 |

Table 2 presents the reliability and validity of constructs and their respective items. According to Field (2013) value of Cronbach alpha is acceptable at 0.70 & factor loadings are acceptable at 0.50. According to Hair et al. (2017) threshold for average variance extracted is >0.50 and composite reliability (CR) is >0.70. It is evident that all constructs i.e., tangibility with Cronbach alpha ($\alpha$ = 0.794); reliability with ($\alpha$ = 0.849); responsiveness ($\alpha$ = 0.740); assurance (0.758); and empathy ($\alpha$ = 0.794) met threshold value. For satisfaction ($\alpha$ = 0.876). Factor loadings of all items of all constructs are above 0.50. AVE and CR values of all constructs met threshold thus it is assumed that scales used are reliable and valid.

Table 2 Reliability & Validity Analysis

| Items | Cronbach Alpha | Loadings | AVE | CR |
|---|---|---|---|---|
| Tangibility | | | | |
| Item 1 | | 0.861 | | |
| Item 2 | 0.794 | 0.859 | 0.629 | 0.871 |
| Item 3 | | 0.735 | | |
| Item 4 | | 0.705 | | |
| Reliability | | | | |
| Item 1 | | 0.776 | | |
| Item 2 | 0.849 | 0.843 | 0.688 | 0.898 |
| Item 3 | | 0.863 | | |
| Item 4 | | 0.834 | | |
| Responsiveness | | | | |
| Item 1 | | 0.718 | | |
| Item 2 | 0.740 | 0.760 | 0.564 | 0.838 |
| Item 3 | | 0.704 | | |
| Item 4 | | 0.818 | | |
| Assurance | | | | |
| Item 1 | | 0.843 | | |
| Item 2 | 0.758 | 0.667 | 0.581 | 0.846 |
| Item 3 | | 0.802 | | |
| Item 4 | | 0.724 | | |

Table 2a Reliability & Validity Analysis

| Empathy | | | | |
|---|---|---|---|---|
| Item 1 | | 0.669 | | |
| Item 2 | 0.794 | 0.811 | 0.622 | 0.867 |
| Item 3 | | 0.819 | | |

| | | | | |
|---|---|---|---|---|
| Item 4 | | 0.844 | | |
| Satisfaction | | | | |
| Item 1 | | 0.872 | | |
| Item 2 | 0.876 | 0.893 | 0.730 | 0.915 |
| Item 3 | | 0.796 | | |
| Item 4 | | 0.853 | | |

Table 3 Difference in Mean Scores of Public & Private Hospitals Service Quality

| Variables | Mean (S.D) | | Difference |
|---|---|---|---|
| | Public | Private | |
| Tangibles | 5.35(1.26) | 4.32(1.21) | 1.03 |
| Reliability | 5.59(1.26) | 4.00(1.39) | 1.59 |
| Responsiveness | 5.07(1.15) | 3.86(1.36) | 1.21 |
| Assurance | 4.724(0.838) | 3.968(1.092) | 0.756 |
| Empathy | 5.26(1.14) | 3.64(1.30) | 1.62 |
| Overall Satisfaction form Quality | 5.24(1.29) | 3.70(1.37) | 1.54 |

The T-test were run to find the difference in service quality. The findings revealed that difference is observed form scores taken from t-test. Table 3 presents results of t-tests and its difference in scores of all the dimensions of SERVQUAL model and overall satisfaction from quality services. See Table 3 and Figure 1.

Figure 1 Difference in Satisfaction Scores between Public & Private Hospitals
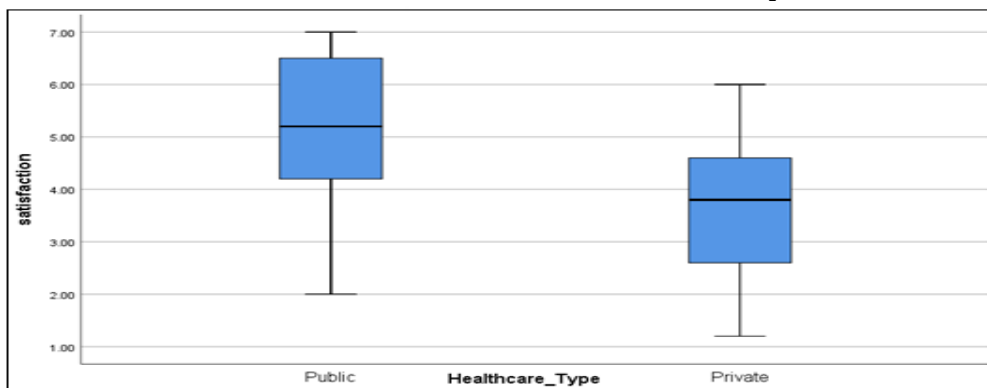


## DISCUSSION

Current study was conducted in Qassim province. Patients from different hospitals were included in the study. Results revealed significant difference in scores of private and public hospitals services quality. These results are in line with the findings of Alumran et al. (2021), reported the significant differences in Eastern province of Saudi Arabia. The finding of this existing study contradicts with findings of Al-Neyadi et al. (2016) found the negative responses regarding health service quality of hospitals. Cost of treatment in government hospitals is very low or at no cost. Government hospitals have high accessibility & specialized care due to this reason patients are found highly satisfied form government hospitals. Findings revealed that most of respondents belong to public sector hospitals and majority of respondents were male. In addition, majority of respondents were Saudi nationals

with age of 20-30 years holding bachelor degree. These findings are also consistent with findings of Alumran et al. (2021). Finding of the current study contradicts with study of Pakistan where private sector hospitals provide high quality services to patients (Khan, 2018) Moreover, findings of Shabbir et al. (2016) also contradict with findings of the current study. Public sector hospitals in Pakistan are low in tangibility and responsiveness, on the other hand public sector hospitals are found high in tangibility and responsiveness.

As government hospitals in Pakistan are nonprofit in nature that is the reason health managers pay less attention on health care service quality and this gap allow the private hospitals in Pakistan to produce better results. On other hand, public sector hospitals and their health managers pay full attention on the quality protocols given to them by MoH. That is reason of high level of satisfaction of patients from public sector hospitals and their service quality. It is important to mention about distribution of healthcare facilities in rural and urban areas. The basic and specialized health care services are available for Saudi nationals while some specialized and emergencies are available for non-Saudi citizens. Findings showed that if perceptions of patients exceed expectation than patients are found highly satisfied. In current study there is significant difference found in service quality of public and private healthcare organizations and overall patients are found more satisfied form the government hospitals' service quality as compared to private hospitals in Qassim province. When hospitals are able to provide the diagnosis, treatment and solve issue of patients, given them privacy, listen to patients' problems, provide them care and doctors and nurses are able to answer questions of patients then patients would be satisfied. The findings are in line with the findings of Owusu et al. (2017) and Darzi et al. (2023).

## CONCLUSION

Saudi Health system is moving towards privatization to enhance quality of health services. Health managers of both the public and private hospitals must measure and make a comparison of health services provided by both sectors. The perceptions of patients are helpful in this regard for health managers to formulate policies to improvise service quality. Studies conducted in Eastern province revealed that private hospitals provide better services than public hospitals but this study finding revealed that public sector hospitals provide better services as compared to private sector hospitals in Qassim province. Thus, enhancing service quality would help in increasing patients' satisfaction, profitability, better prices and income and high employee productivity. MoH and policy makers can take benefits from the findings of this study to improve their services' quality. Private hospitals need to pay sufficient attention on increasing patient satisfaction. Findings of the studies conducted on comparison of service quality of public and private hospitals help MoH, health managers and hospitals administration to formulate such plans on the feedback taken from patients who in future enhance services quality. This would increase the patients; satisfaction as well as health workers productivity. Policy makers and health managers can concentrate on marketing their services to get maximum benefits.

## Limitations & Future Directions

The small sample size is first limitation, so one must be careful in generalizing the findings to other regions and provinces in Saudi Arabia. Second limitation is single source of data collection which

may cause biasness therefore in order to reduce and control this issue in future studies it is better to use mix methods research. Third, the sampling technique may limit the generalizability of the study findings consequently future studies may use different sampling technique to better understand the subject matter.

## REFERENCES

Akhtar, S., Ahmed, Z., Sreekantan Nair, K., Mughal, Y.H., & Mehmood, A. (2022). Out-of-Pocket Expenditure on Delivery Care in Public and Private Health Sectors: A Study in Rural District of Pakistan. *Amazonia Investiga*, 11(54), 121-136.

Albert, I., Ahmed, K. M., & Damrah, I. I. (2018). The Kingdom of Saudi Arabia Healthcare Overview.

Al-Borie, H. M., & Damanhouri, A. M. (2013). The Patients' satisfaction of service quality in Saudi hospitals: A SERVQUAL analysis. *International journal of health care quality assurance*, 26:20–30

Alkhamees, M., Lea, J., Islam, M. S., Alasqah, I., Alzghaibi, H., Albejaidi, F., Mughal, H., & Parker, V. (2023). A Qualitative Investigation of the Factors Affecting Saudi Patients' Communication Experience with Non-Saudi Physicians in Saudi Arabia. *Healthcare*, 11, 118.

Almalki, M., Gerald, G., & Clark, M. (2011). Health care system in Saudi Arabia: An overview. *Eastern Mediterranean Health Journal*, 17:784–793

Al-Neyadi, H., Abdallah, S., & Malik, M. (2016). Measuring patient's satisfaction of healthcare services in the UAE hospitals: Using SERVQUAL. *International Journal of Healthcare Management*, 11:1–10

Alumran, A., Almutawa, H., Alzain, Z., Althumairi, A., & Khalid, N (2021) Comparing public and private hospitals' service quality. *Journal of Public Health: From Theory to Practice*, 29:839–845.

Alzghaibi, H, Alharbi A. H., Mughal, Y. H., Alwheeb, M. H., Alhlayl, A. S. (2023). Assessing primary health care readiness for large-scale electronic health record system implementation: Project team perspective. *Health Informatics Journal*, 29(1).

Alzghaibi, H., Mughal, Y. H., Alkhamees, M., Alwheeb, H., & Alrehiely, M. (2022). Impact financial resources on implementation of large-scale electronic health records in the Saudi Arabia's primary healthcare centers: Mixed methods. *Frontiers in Public Health*, 10:1037675.

Andaleeb, S. (2001) Service quality perceptions and patient satisfaction: a study of hospitals in a developing country. *Social Sciences & Medicine*, 52:1359–1370

Arab, M., Tabatabaei, G., Rashidian, a, Forushani, R., & Zarei, E. (2012). The Effect of Service Quality on Patient loyalty: A Study of Private Hospitals in Tehran, Iran. *Iranian Journal of Public Health*. 28: 41–50

Changole, J., Bandawe, C., Makanani, B., Taulo, F., Malunga, E., & Kafulafula, G. (2010). Patients' satisfaction with reproductive health services at Gogo Chatinkha Maternity Unit, Queen Elizabeth Central Hospital, Blantyre, Malawi. *Malawi Medical Journal*, 22(1).

Darzi, A., Islam, B., Khursheed, S. O. & Bhat, S. A. (2023). Service quality in the healthcare sector: a systematic review and meta-analysis", LBS Journal of Management & Research, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/LBSJMR-06-2022-0025.

Dhahri, A. A., Iqbal, M. R., & Khan, A. F. A. (2020). A cross-sectional survey on availability of facilities to healthcare workers in Pakistan during COVID-19 pandemic. *Annals of Medicine and Surgery*, 59, 127–130.

Field, A. (2013) Discovering Statistics Using IBM SPSS Statistics: And Sex and Drugs and Rock "N" Roll, 4th Edition, Sage, Los Angeles, London, New Delhi.

Ham, H., Peck, E. H., Moon, H. S., & Yeom, H. (2015). Predictors of Patient Satisfaction with Tertiary Hospitals in Korea, 2015. Hanna, N., & Wozniak, R. (2001). Consumer Behavior: An Applied Approach. *PLoS Medicine*, 8, 586.

Irfan, S., & Ijaz, A. (2011). The comparison of service quality between private and public hospitals: empirical evidences from Pakistan. *Journal of Quality and Technology Management*, 7:1–22

Jabnoun, N., Chaker, M. (2003). Comparing the quality of private and public hospitals. *Managing Service Quality: An International Journal*, 13:290–299

Kalaja, R., Myshketa, R., & Scalera, F. (2016). Service quality assessment in health care sector: The case of Durres public hospital. *Procedia-Social and Behavioral Sciences*, 235, 557–565.

McDougall, G., & Levesque, T. (1995). A revised view of service quality dimensions: an empirical investigation. *Journal of Professional Services & Marketing*, 11:189–210

Mosadeghrad, M. A. (2013). Healthcare service quality: towards a broad definition. *International Journal of Health Care Quality Assurance*, 26:203–219

Owusu Kwateng, K., Lumor, R., & Acheampong, F. O. (2017). Service quality in public and private hospitals: A comparative study on patient satisfaction. *International Journal of Healthcare Management*, 1–8.

Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49:41–50

Taner, T., & Antony, J. (2006). Comparing public and private hospital care service quality in Turkey. *Leadership in Health Services*, 19:1–10

Yeşilada, F., & Direktouml, E. (2010). Health care service quality: a comparison of public and private hospitals. *African Journal of Business & Management*, 4:962–971