FACTORS INDICATING THE PATIENT PERCEPTION TOWARDS VIRTUAL CONSULTATION IN HEALTHCARE: AN ASSESSMENT THROUGH THE SERVICE QUALITY DIMENSIONS

N Kavipriya

Faculty of Management Sciences, Sri Ramachandra Institute of Higher Education and Research, kavi.rishi03@gmail.com

Prof. Selvam Jesiah

Professor and Principal, Faculty of Management Sciences, Sri Ramachandra Institute of Higher Education and Research, sjesiah@gmail.com

Prof. Vidya Ramkumar

Professor, Intermediate Fellow, DBT/Wellcome Trust India Alliance, SRFASLP, Department of Speech, Language and Hearing Sciences, Sri Ramachandra Institute of Higher Education and Research vidya.ramkumar@sriramachandra.edu.in

Abstract

BACKGROUND: The effectiveness of telemedicine and patient satisfaction with telemedicine is becoming increasingly important as a result of the COVID-19 pandemic and the increased use of telemedicine in clinical practice. This study focuses on patients' perceptions of the service quality provided to them and the impact on their satisfaction with the services provided. Because of the COVID-19 pandemic and the increased use of telemedicine in clinical practice, the effectiveness of this modality and patient satisfaction with telemedicine is becoming increasingly important. This study focuses on the perception of the patients in terms of the service quality offered to them and its impact on their satisfaction with the services offered.

MATERIALS & METHOD: We used a cross-sectional design to administer the ServQual dimensions questionnaire to 160 patients who visited telemedicine at least once between September 2021 and December 2022. The survey tool includes two sections: demographic information and patient perception. Questionnaires were sent via??? Email? Administered in person by PI? at random using a random number? software. To achieve the study's objectives, data were summarised using descriptive statistics, and the internal reliability of the ServQual questionnaire was assessed using Cronbach's coefficient alpha. To assess the model's fit, discriminate validity was used. We surveyed 160 patients who visited telemedicine at least once from Sep 2021 to Dec 2022 using the ServQual dimensions questionnaire. A descriptive cross-sectional study was approached. The survey consists of two parts - demographic components and perception of the patients. Questionnaires were distributed at random via software created for the feedback. Data were summarized using descriptive statistics and the internal reliability of



ServQual questionnaire was assessed using Cronbach's coefficient alpha to fulfill the objectives of the study. Discriminate validity was applied to check the fitness of the model.

RESULTS: The study findings suggest that the 'assurance' provided by hospitals in telemedicine services is the most important aspect of the service quality provided to patients. It is noted that in telemedicine, 'reliability' and 'empathy' play an important role in service quality. 'Responsiveness' has a very minor impact on the service quality provided to respondents. However, patients are not convinced of the 'tangibility' in the quality of service provided through telemedicine. Cronbach's alpha (> 0.70) and composite reliability (> 0.70) both confirmed the model's statistical significance and provided strong evidence of internal consistency reliability. The AVE value (0.566 to 0.779), and discriminant validity also confirmed the model fit. The R Square of 0.75, indicates that the model can explain the variation in the dependent variable.

CONCLUSION: The results revealed differences in perceptions of telemedicine patient satisfaction dimensions based on both service quality and patient demographics. as well as insights into their overall impact on telemedicine patient satisfaction. The measurement finds that reliability, assurance, empathy, and responsiveness have a positive impact on patient satisfaction, whereas the telemedicine dimension needs to be improved.

Keywords: Service quality dimensions, patient satisfaction, Telemedicine, Hospitals.

Introduction

The healthcare system is going through a fundamental revolution, driven by regulatory changes that favour quality over quantity and remarkable technological advancements. Patients and doctors are looking forward to improving the quality of healthcare to reach accessibility, affordability and financial viability in the sector of healthcare (Alaka Chandak et al., 2023). By bridging the gap between time and place, telemedicine solutions enable the evaluation of a therapy or the making of a diagnosis without the patient and the healthcare provider being present in the same room at the same time (Kaium et al., 2020). However, Telemedicine is said to be a convenient and promising solution that serves as a suitable method of delivering healthcare in developing nations like India. It is also a tool for patients who do not want to waste traveling costs and time to consult a doctor.

Because of digitization processes, the health system underwent a significant transformation, especially during the COVID-19 pandemic period it is not only producing new products, even service models, and business practices replaced conventional methods (Arfi et al.,2021). Although consulting patients directly is an undeniable practice in healthcare, telemedicine can support treatment and reduce potentially lengthy travel or waiting periods.

At this juncture, the perception of the patients in terms of the service quality offered to them seems to be vital and it can be judged through their satisfaction with the services offered. Because telemedicine can be accessible at any time and from any location, it is expected to flourish as it will allow medical facilities to reach rural locations despite their limited distribution of medical personnel. The purpose of this study is to evaluate the effect of telemedicine service quality on patient satisfaction which leads to revisiting intention and word-of-mouth communication. Service



quality makes a substantial contribution to each organization's uniqueness, positioning, and competitive strategy (Chandra and Tjiptono, 2016). Customer evaluation, which acts as their view of the services offered, serves as a generic definition of service quality (Choudhury, 2013). Patients' expectations for receiving health care are raised by the health sector's commitment to providing high-quality services (Amiresmaili & Nekoei-Moghadam, 2011). Five factors are crucial when evaluating the quality of service: dependability, certainty, tangibility, responsiveness, and empathy (Jha & Kansra, 2016). Naveed et al., (2020) in their study article "Patient Satisfaction through Modified ServQual Model" explore the relationship between patient satisfaction and a modified ServQual model used in the private healthcare sector. The ServQual model's six dimensions: responsiveness, reliability, empathy, assurance, tangibility, and usability were all examined in the research of in-patients. According to the results of the correlation and regression analyses, the factor of responsiveness was the most significant and predominates in terms of patient satisfaction. The study also demonstrates that the sixth usability dimension has evidence to improve patient happiness, and all five dimensions of the ServQual model are having a beneficial impact on patient satisfaction in Pakistan's private healthcare system. To increase care recipients' happiness, healthcare practitioners must enhance the way they give care. With value measurement derived from experience and feelings that have been tested by customers to the product, patient satisfaction can be employed as a thought in an overall assessment of the product. Natarajan & Ndubisi (2018), according to a different perspective, ensuring customer happiness involves carefully assessing each time how the customer feels about the product, whether it be in the form of goods or services. Mazzulla and Forciniti (2016), patient satisfaction, according to a medical industry perspective, is an overall evaluation provided by the patient during service that forms the foundation of rising competitiveness value. Patient happiness itself has a positive effect on shifting patients' attention from themselves to other clients Dobrzykowski et al., (2015). Patient satisfaction is associated to improve the quality of the service and loyalty to the healthcare service (Ahmed et al., 2017 Fatima et al., 2018). Patient satisfaction can be measured by the multidimensional approach by using the ServQual model developed by Parasuraman et al which puts forth the development of a patient-centric approach in telemedicine (Mason, 2022).



Fig 1: Conceptual framework



II. Methodology

A. Study design, Population, Sampling, and Data collection procedure

The study is a quantitative type employed to the pretested structured questionnaire. Hence this approach is useful in analyzing problems by providing statistical data on the current social phenomena (Creswell, 2009).

The target population was patients who consulted doctors through telemedicine in the year 2021 June to May 2022 from three multi-specialty hospitals in Chennai city.

The study employed a non-random sampling method, a convenience Sampling technique was adopted to select the samples since the samples of the study are unknown to the researchers. The data was collected from 160 respondents who consented to participate.

Ethical issues

The study was conducted with formal ethical approval from the research ethics committee. The participants in the study are priorly informed about the research purpose and confidentiality of the data. Data privacy and confidentiality are maintained throughout the study.

B. Research Instrument

A questionnaire is the study instrument and a web survey was done for collecting the patients' responses. The questionnaire consists of three sections: Section-I comprises personal information, Section II comprises expectations of the patient and Section III consists of the perception of the patient scales. Variables taken in Section-I are of categorical type, whereas Section-II and Section-III variables are of type 5-point Likert scales. Participants are instructed to mark an appropriate scale ranging from 1(Strongly disagree) to 5 (Strongly agree).

C. Survey item mapping and content development

The research framework was prepared based on the ServQual tools model proposed by Parasuraman et. al., RATER model. The dimensions are Reliability, Assurance, Tangibility, Empathy, and Responsiveness. The items under each dimension are taken from the existing

telemedicine satisfaction questionnaire such as Tess, TSQ, TMPQ, ServQual, and PACT. The service quality dimensions act as independent variables and Patients' satisfaction is taken as the dependent variable in the study.

Data was analyzed using SPSS v23. (Statistical Package for Social Sciences) according to the patient's responses to the statements in the questionnaire. Cronbach alpha has been used to study the reliability of the Service quality and Patient satisfaction scales. Descriptive statistics is applied to study the Service quality levels provided to the patients. The impact of Service Quality was

captured through multiple regressions on Patients' satisfaction with Telemedicine.

IV. Results and Discussion

A. Demographics of the sample

Respondents' demographic details such as gender, age, educational qualification, annual income, marital status, occupation, and type of visit are presented in Table-I:



| Variablas | Classification | Number of | Percentage | |
|----------------|---------------------------|-------------|------------|--|
| variables | Classification | respondents | | |
| Condon | Male | 97 | 60.6 | |
| Genuer | Female | 63 | 39.4 | |
| | Up to 20 years | 12 | 7.5 | |
| | 21 - 30 years | 6 | 3.7 | |
| Age | 31 - 40 years | 17 | 10.6 | |
| | 41-50 years | 74 | 46.3 | |
| | 51 years & Above | 51 | 31.9 | |
| | Up to School level | 58 | 36.3 | |
| Education | Graduation | 53 | 33.1 | |
| Qualification | Post-Graduation | 5 | 3.1 | |
| | Other Professional course | 44 | 27.5 | |
| | Below Rs. 3 lakhs | 63 | 39.4 | |
| A | Rs. 3-5 lakhs | 35 | 21.9 | |
| Annual income | Rs. 5-7 lakhs | 21 | 13.1 | |
| | Rs. 7 lakhs and above | 41 | 25.6 | |
| Marital status | Married | 142 | 88.8 | |
| Marital status | Single | 18 | 11.2 | |
| | Government employees | 21 | 13.2 | |
| Occupation | Private Employee | 33 | 20.6 | |
| Occupation | Businessman | 65 | 40.6 | |
| | Professional | 41 | 25.6 | |
| | New visit | 104 | 65.0 | |
| True of right | - Postoperative | 43 | 26.9 | |
| i ype of visit | Follow up | 13 | 8.1 | |

Table-1: Profile of the Respondents

Source: Primary data

Throughout the year 2022, a total of 160 people completed the online survey. The median age ranged from 35 to 59 years. Male and female respondents accounted for 61% and 40%, respectively. In terms of education, 58 percent were graduates, while 35 percent were illiterates. In terms of income, 65 percent of respondents earned more than 5 lakhs per year, while 13 percent earned less than 3 lakhs. 65 percent of respondents were first-time visitors, and 35 percent had prior experience with telemedicine consultations in healthcare.

B. Measurement Model

The model evaluated the internal consistency reliability using cronbach's alpha which ranged from 0.722 to 0.888. These values are above the standard value hence the items in the questionnaire were found to be reliable for data collection (Hair et al.,2017)., 2017). The loading criteria for the



indicator reliability is said to be more than 0.60 which confirms the reliability indicator is standardized (Chin, 1988). Another measure suggested by Fornell and Larcker (1981) is average variance extracted (AVE). AVE values of 0.5 and above establish convergent validity. The AVE value for this questionnaire ranged from 0.566 to 0.779. The AVE values for each construct explain more than half of the variance in their corresponding indicators, demonstrating convergent validity (Rolda and Sa'nchez-Franco, 2012 and Henseler et al., 2009).

Discriminant validity defines the extent to which a construct in a model is distinct from other constructs by empirical standards (Henseler et al., 2009). A construct accepts more variance from its assigned items than any other construct. The findings in the correlation matrix confirm that the square root of the AVE for each construct is greater than the correlation with other constructs, indicating acceptable discriminant validity.

| Constru | Indicato | Stand. | Cronbach | Composit | AVE | Discriminate |
|------------|-----------|--------|----------|------------|-------|--------------|
| cts | rs | Loadin | 's Alpha | e | | analysis |
| | | g | (α) | Reliabilit | | |
| | | | | y (CR) | | |
| Tangibili | T1 | .730 | .773 | 0.878 | 0.592 | 0.701 |
| ty | T2 | .747 | | | | |
| | T3 | .703 | | | | |
| | T4 | .711 | | | | |
| | T5 | | | | | |
| | | .763 | | | | |
| | | | | | | |
| | D1 | 070 | 0.50 | 0.974 | 0.625 | 0.602 |
| | RI | .870 | .878 | 0.874 | 0.035 | 0.692 |
| Reliabilit | R2 | .860 | | | | |
| У | R3 | .864 | | | | |
| | R4 | .855 | | | | |
| | R5 | .858 | | | | |
| | R6 | .858 | | | | |
| | R7 | .868 | | | | |
| | R8 | .868 | | | | |
| | Res 1 | .881 | | | | |
| | Res 2 | .881 |] | | | |
| | Res 3 | .876 | | | | |
| | Res 4 | .875 | | | | |
| | Res 5 | .875 | | | | |

Table 2: Measurement model assessment



| Responsi | Res 6 | .871 | .888 | 0.911 | 0.6 | 0.852 |
|-----------|-------|------|------|-------|-------|-------|
| veness | Res 7 | .874 | | | | |
| | Res 8 | .873 | | | | |
| | Res 9 | .873 | | | | |
| Assuranc | A1 | .823 | | | | |
| e | A2 | .829 | | | | |
| | A3 | .821 | | | | |
| | A4 | .812 | .851 | 0.901 | 0.646 | 0.951 |
| | A5 | .836 | | | 0.040 | |
| | A6 | .833 | | | | |
| Empathy | E1 | .764 | .800 | 0.9 | 0.566 | 0.749 |
| | E2 | .752 | | | | |
| | E3 | .733 | | | | |
| | E4 | .750 | | | | |
| Behavio | B1 | .594 | .722 | .046 | .779 | .852 |
| ur | B2 | .647 | | | | |
| Intention | B3 | .658 | | | | |

Table 3: Perception of the Patients on Service quality dimensions

| Service quality dimensions | Mean | SD |
|----------------------------|------|-------|
| Reliability | 3.42 | 1.362 |
| Assurance | 3.64 | 1.167 |
| Tangibility | 2.82 | 0.861 |
| Empathy | 3.41 | 1.194 |
| Responsiveness | 3.12 | 0.992 |

Source: Primary data

Table 3 indicates that the patients are satisfied with the service quality offered by the hospitals in telemedicine. The descriptive statistics indicate that 'Assurance' given by the hospitals in Telemedicine services is the key aspect of service quality offered to the patients. It is noted that Reliability, Empathy in Telemedicine plays a good role in service quality. Responsiveness plays a very moderate role in the service quality offered to the respondents. However, the patients are not convinced of the Tangibility of the service quality offered in Telemedicine services.

In this section, the impact of service quality on Patient' satisfaction was identified through multiple regression analysis. In this analysis, the service quality dimensions (Reliability, Assurance, Tangibility, Empathy, and Responsiveness) are taken as independent variables, whereas Patient satisfaction plays the role of the dependent variable. Table 5 presents the result of the Impact of Service Quality on Patients' satisfaction



| Service Quality | R ² | Beta | F-statistics | t- value |
|-----------------|-------------------------|-------|---------------------|----------|
| (Constant) | 0 523 | 0.268 | | 2.466* |
| Reliability | | 0.326 | | 5.767** |
| Assurance | Adjusted R ² | 0.192 | 52.922** | 2.825** |
| Tangibility | | 0.089 | (p=.000) | 1.366 |
| Empathy | 0.517 | 0.256 | | 4.384** |
| Responsiveness | 0.017 | 0.172 | | 2.472* |

Table 4: Impact of Service Quality on Patients' Satisfaction

* Significant at 5% level ** Significant at 1% level

R Square is a value in measuring the model's ability to explain the variation of the dependent variable (Ghozali, 2017). The R Square has a range of 0 to 1. The R Square of 0.75 is identified as a strong model, 0.50 moderate model, and 0.25 weak model (Hair et al., 2017). The F-value 52.922 in Table 5 shows that the F-value is significant at a 1% level, the null hypothesis H₀1 is rejected. The Coefficient of determination 0.523 indicates that the service quality dimensions explore a variability of 52.3% in Patient satisfaction. It is observed that Reliability, Assurance, Empathy, and Responsiveness have got a positive impact on Patients' satisfaction. However, it is noted that Tangibility is not having a significant impact on Patients' satisfaction. One unit improvement in Reliability, Assurance, Empathy, and Responsiveness has enhanced the Patients' satisfaction by 0.326, 0.192, 0.256, and 0.172 units respectively. Also, it is noted that Reliability followed by Empathy and Assurance predicts the service quality offered to the patients and predicts the patient's satisfaction.

Table 4, the R2 is valued as 0.523 which implies that 52% of the variables fit with the model is fit satisfaction. Therefore the changes in service quality will provide a variation in the satisfaction level, and revisit intention and word-of-mouth communication. Based on this, it is said that the value of R Square on the customer satisfaction model is close to moderate.

Discussion & Conclusion

The study indicates patients are satisfied with assurance, and responsiveness. This research successfully ascertained and determined the potential origins that play key roles in predicting and forecasting patients' satisfaction with telemedicine experience. Even though telemedicine is being used more frequently, it is still unclear what patients think about it. Despite the need for physical distance, telemedicine demonstrated its viability during COVID-19 by lowering rates of clinic closures and appointment cancellations and significantly lowering the risk of virus transmission. Applications in telemedicine played a crucial role in assisting public health measures and lowering risk while maintaining high standards of treatment. The expectation and perceptions of the patients were considered to evaluate the service quality in telemedicine. It is observed that Reliability, Assurance, Empathy, and Responsiveness showed a positive impact on Patients' satisfaction. However, the tangibility was found to be the poor taste of the patient. It is noted that Reliability followed by Empathy and Assurance predicts the service quality offered to the patients and predicts the patient's satisfaction. Barriers to effective deployment and usage of telemedicine



include issues with computer literacy and hesitation to embrace new technologies. Language challenges in telemedicine are still another problem. The technical proficiency and knowledge of healthcare providers should be taken into account when developing strategies to adopt hospital information systems. Patient access to high-quality healthcare is increased through developing the capabilities and technical skills of healthcare providers. In accordance with the suggested framework based on the ServQual model, this study will be useful in determining the patient's satisfaction with the service qualities. Telemedicine patient satisfaction is an important concept that influences patient medical treatment adherence, and thus patient health. Furthermore, satisfied telemedicine patients may be inclined to use future telemedicine services or recommend them to others, resulting in long-term revenue for providers.

The patient's financial and educational status can have an impact on their health. Financially affluent and more educated patients are more likely to practice healthier lifestyle habits such as eating healthier diets and getting regular medical screenings. Overall the participation of male is more than female comparatively. Has moderate level of patient as just completed schooling there is requirement to make the medical explanation more clearly to such patient by avoiding the medical jargon by the physicians. The survey shows 40% of the patient income level is below 3 lakhs, there can higher patient satisfaction by increasing insurance reimbursements and increasing patient loyalty behaviours, both of which lead to increased revenue for the provider.

Variations in patient satisfaction across observed demographics provide a more refined understanding of the factors that influence patient satisfaction. The success and extent to which telehealth services are used can be impacted by the satisfaction of stakeholders, including patients and service providers (Al-Abri and Al-Balushi, 2014). Service quality has been the subject of intense debate for decades since it is crucial to customer happiness, loyalty, and retention. By using technology to communicate quickly and reduce the need for patients to physically visit the clinic, telemedicine enables remote delivery of healthcare. This raises cost-effectiveness, improves access to care and medical information, raises the quality of services, and boosts patient satisfaction. **References**

1. Abdel Nasser A, Mohammed Alzahrani R, Aziz Fellah C, Muwafak Jreash D, Talea A, Almuwallad N, et al. Measuring the patients' satisfaction about telemedicine used in Saudi Arabia during COVID-19 pandemic. Cureus. 2021; 13(2): e13382.

2. Ahmed, S., Tarique, K. M., & Arif, I. (2017). Service quality, patient satisfaction and loyalty in the Bangladesh healthcare sector. International Journal of Health Care Quality Assurance, 30 (5), 477-488.

3. Al-Abri, R.; Al-Balushi, A. Patient Satisfaction Survey as a Tool Towards Quality Improvement. Oman Med. J. 2014, 29, 3–7. [CrossRef]

4. Al-Daoar, R.M.A. and Munusamy, S., (2019). Effect of Personnel Care Quality of Private Healthcare Providers on Arab Patients' Satisfaction and Word-of-Mouth Communication: An Empirical Research in India.



5. Al-Samarraie H, Ghazal S, Alzahrani AI, Moody L. Telemedicine in Middle Eastern countries: progress, barriers, and policy recommendations. Int J Med Inform. 2020; 141(104232): 104232. <u>doi:10.1016/j.ijmedinf.2020.104232</u>.

6. Cassoobhoy A. What Is Telemedicine? How Does Telehealth Work? 2020 Retrieved from https://www.webmd.com/lung/ how-does-telemedicine-work.

7. Chandak, A., Holkar, M., Moghe, A. and Washikar, K., 2023. Use of telehealth during COVID-19 pandemic in India: literature review. *International Journal of Public Health*, *12*(1), pp.164-171.

8. Chin WW. The partial least squares approach to structural equation modeling. Lawrence Erlbaum Associates, London; 1998.

9. Choudhury, K. (2013). Service quality and customers' purchase intentions: an empirical study of the Indian banking sector. International Journal of Bank Marketing, 31(7), 529-543.

10. De Oña, J., de Oña, R., Eboli, L., Forciniti, C., & Mazzulla, G. (2016). Transit passengers' behavioural intentions: The Influence of Service Quality and Customer Satisfaction. Transportmetrica A: Transport Science, 12(5), 385-412.

11. Dobrzykowski, D. D., Callaway, S. K. Vonderembse, M. A. (2015). Examining pathways from innovation orientation to patient satisfaction: A relational view of healthcare delivery. Decision Sciences, 46(5), 863-899.

12. Fatima, T., Malik, S. A., & Shabbir, A. (2018). Hospital healthcare service quality, patient satisfaction and loyalty: An investigation in context of private healthcare systems. International Journal of Quality & Reliability Management, 35 (6), 1195-1214.

13. Fornell C, Larcker DF. Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and.pdf. J Mark Res 1981;XVIII:39–50.

14. Ghotbabadi, A. R., Feiz, S., & Baharun, R. (2015). Service Quality Measurements: A Review. International Journal of Academic Research in Business and Social Sciences, 5(2), 267–286. https://doi.org/10.6007/ijarbss/v5-i2/1484.

15. Gustke, S. S., Balch, D. C., West, V. L., & Rogers, L. O. (2000). Patient satisfaction with telemedicine. Telemedicine Journal, 6(1), 5–13. <u>https://doi.org/10.1089/107830200311806</u>.

16. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 2nd ed. United Kingdom: SAGE Publications, Inc.; 2017.

17. Henseler J, Ringle CM, Sinkovics RR. In: The use of partial least squares path modeling in international marketing. Emerald Group Publishing Limited; 2009. p. 277–319.

18. <u>https://www.fortunebusinessinsights.com/industry-reports/telemedicine-market-101067.</u>

19. Kansra, P., & Jha, A. K. (2016). Measuring service quality in Indian hospitals: an analysis of ServQual model. International Journal of Services and Operations Management, 24(1), 1.

20. M. Bhatia and D. P. Singh, "Health Sector Allocationin India's Budget (2021–2022): A Trick or Treat?," The International Journal of Community and Social Development, vol. 3, no. 2, pp. 177–180, Jun. 2021, doi: 10.1177/25166026211017338.

21. Mason, A.N., 2022. The most important telemedicine patient satisfaction dimension: Patient-centered care. *Telemedicine and e-Health*, *28*(8), pp.1206-1214.



22. N. Fullman et al., "Measuring performance on the Healthcare Access and Quality Index for 195 countries and territories and selected subnational locations: a systematic analysis from the Global Burden of Disease Study 2016," The Lancet, vol. 391, no. 10136, pp. 2236–2271, Jun. 2018, doi: 10.1016/S0140-6736(18)30994-2.

23. Ndubisi, N. O., & Nataraajan, R. (2018). Customer satisfaction, Confucian dynamism, and long-term oriented marketing relationship: A threefold empirical analysis. Psychology & Marketing, 35(6), 477-487.

24. Nekoei-Moghadam, M., & Amiresmaili, M. (2011). Hospital services quality assessment: Hospitals of Kerman University of Medical Sciences, as a tangible example of a developing country. International journal of health care quality assurance, 24(1), 57-66.

25. Rana Tahir Naveed, Ahmad Mohmad Albassami, Naveed Ahmad & Mahsa Moshfegyan Patient Satisfaction through modified ServQual Model, Pacific Business Review International, January 2019, vol 11 (7), pp 96-106.

26. Rolda'n JL, Sa'nchez-Franco MJ. Variance-based structural equation modeling: guidelines for using partial least squares. Research methodologies, innovations and philosophies in software systems engineering and information systems. 2012; 193.

27. Sarstedt, M., Ringle, CM, & Hair, JF (2017). Partial Least Squares Structural Equation Modeling. In C. Homburg, M. Klarmann, & A. Vomberg (Eds.), Handbook of Market Research (pp. 1–40). Springer International Publishing. https://doi.org/10.1007/978-3-319-05542-8 15-1

28. Sood, S., Mbarika, V., Jugoo, S., Dookhy, R., Doarn, C. R., Prakash, N., & Merrell, R. C. (2007). What is telemedicine? A collection of 104 peer-reviewed perspectives and theoretical underpinnings. Telemedicine and E-Health, 13(5), 573–590, <u>https://doi.org/10.1089/tmj.2006.0073</u>.

29. Tjiptono, F., Chandra, G. (2016), Service, Quality dan Satisfaction. Yogyakarta: Penerbit Andi.

30. Kaium, M.A.; Bao, Y.; Alam, M.Z.; Hoque, M.R. Understanding continuance usage intention of mHealth in a developing country: An empirical investigation. Int. J. Pharm. Healthc. Mark. 2020, 14, 251–272.

31. Arfi, W.B.; Nasr, I.B.; Kondrateva, G.; Hikkerova, L. The role of trust in intention to use the IoT in eHealth: Application of the modified UTAUT in a consumer context. Tech. Forecast. Soc. Chang. 2021, 167, 120688.

