Impact of Service Quality on the Satisfaction of Patients in Primary Health Care Centres in Erode District

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Abstract

The present study aims to identify the service gap and relationship between the patients' expectation and perception in primary health care centres' service performance. Fourteen upgraded primary healthcare centres were selected through the simple random sampling technique and 300 sample respondents were used in the study. From the analysis, all the selected variables such as response, assurance, empathy, reliability and tangibility are highly influenced expectation and perception level of patients in utilizing health care centre. The analysis of the model, from the viewpoint of the expectation and perception among the patients, suggests that the variables such as response, assurance, empathy, reliability and tangibility showed significant impact on the expectation and perception of the patients. The study suggested that the periodical assessment is essential to prove the standard of quality of services. It helps to fulfil the expectation of patients in utilising PHC. At the earlier, the policy makers should set up the standard for primary health centre.

Keywords: Assurance, Empathy, Reliability and Tangibility, Service Quality

1. Introduction

Individuals remaining healthier and educated, plenty of and unbiased job availabilities, reliable and unobscured organisations, green practices, worthiness and safety to life are the prime symptoms of inclusive economic growth[1]. The association between health and growth always stand reciprocative, since health yields economic growth, and this again results in strong and healthy citizens. The health of a nation is perceived on the basis of longevity of life, child mortality rate, and general birth and death rates.

2. Review of Literature

Parasuraman et al.[2] established ten key indicators of service quality namely reliability, responsiveness, competence, access, courtesy, communication, creditability, security, understanding and knowing the customer and tangibility to express SERVQUAL. Zethamal et al.[3] exposed that the private sector hospitals were persistently providing unparalleled health services to achieve profitability and continuity. Anand et al.[4] asserted that there was low satisfaction among patients attending government health facilities. Jayanthi Pandian et al.[5] analysed the impact of the policies and newer practices leading to increased use of the PHCs for birthing care.

Though many studies were conducted on the aspect of measurement of service quality in various service industries, however, only a very few studies were found to be carried out in respect of the service quality of Primary Health Care Centres (PHCs) in Tamil Nadu. Hence, the present study focuses on the service quality of primary health care centres in Erode district of Tamil Nadu.

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3. Objective of the Study

- To study the association between patients' expectations and perception of primary health care service performance.

4. Methodology

The study employed both primary and secondary data. The primary data were obtained by means of a well structured interview schedule. The schedule included the questions related to both personal factors comprising patients' income, nature of diseases and nature of treatment, patients' services, patients' problems etc., and the factors of service quality based on the SERVQUAL developed by Parasuraman et al.[6] The interview schedule was designed for the patients in primary rural health care hospitals. The data were collected from both inside and outside patients. Data collected from primary and secondary sources were tabulated and treated with the appropriate statistical tools.

4.1 Sample Design

Basically Erode district was specified chosen for the intake of patients in primary health care centres. The data were collected from 300 respondents based on simple random sampling method representing 14 upgraded primary healthcare centres in Erode district. The data were presented in the form of tables which were systematically analyzed by using Chi-square test, Multiple Regression technique, and finally Structural Equation Modeling (SEM) was used to present the results with accuracy by using SPSS 17.0.

4.2 Hypotheses of the Study

There is a positive impact on expectation and perception of patients in utilizing primary health care centre.

5. Validity of the Measurements

5.1 Hypothetical Model of the Association between Patients' Expectation and Perception

Figure 1 depicts the developed hypothetical model yielding the proposed hypotheses.

5.2 Testing of Model Fit

5.2.1 CMIN

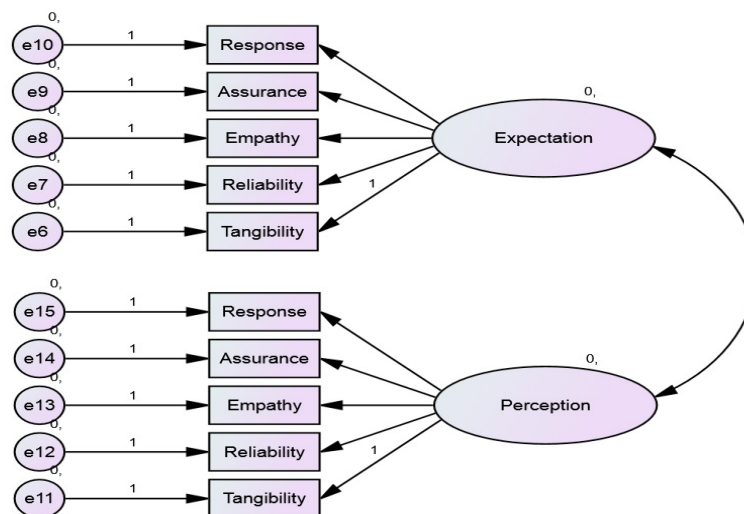Table 1 shows the CMIN for the 'default model'. A significant Chi-square indicates satisfactory model fit.

Figure 1. Hypotheses Supporting Research Model

Table 1. CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	159.124	34	.000	4.680
Saturated model	65	.000	0		
Independence model	20	944.521	45	.000	20.989

Source: Computed from survey data

Table 2. Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.832	.777	.863	.816	.861
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Source: Computed from survey data

Table 3. RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.011	.094	.129	.000
Independence model	.259	.244	.273	.000

Source: Computed from survey data

Table 1 shows the CMIN for the 'default model'. A significant Chi-square indicates satisfactory model fit. CMIN is Chi-square statistics comparing the default model and the independence model with the saturated model. The calculated value of Chi-square test is 159.124 on 34 degrees of freedom, which gives a p-value of 0.00 and this model is a good fit for the analysis. Further, the default model has been associated at 4.680 percent with saturated model and on the other hand, the independence model has been associated at 20.989 percent with saturated model.

5.2.2 Baseline Comparisons

The NFI (Normed Fit Index) also known as Δ_1, is developed as the alternative to CFI (Comparative Fit Index), which is also known as the Bentler Comparative Fit Index[7], compares the existing model fit with the null model which assumes that the latent variables correlate with the independent variables.

Table 2 highlights that the values of NFI is 0.832, IFI is 0.777 and CFI is 0.861, which confirm that the model is a good fit with the saturated and independent model.

5.2.3 RMSEA

Root Mean Square Error of Approximation (RMSEA) is the popular measure of fit, because it does not require comparison with the null model.

It could be noted from Table 3 that the RMSEA value is 0.011 which is lesser than 0.05 and hence the model has resulted as good fit.

6. Resulted Hypotheses Model for the Association between Patients' Expectation and Perception

The following path analysis as shown in Figure 2 is used to prove the selected hypotheses.

6.1 Maximum Likelihood Estimates

Table 4 shows the regression coefficient of the exogenous variables. It can be noted that the critical ratio of E1, E2, E3, E4, E5, P1, P2, P3, P4 and P5 are above the table value of 2.962 and it is significant at 1 percent level. From the analysis, it is concluded that all the selected variables such as response, assurance, empathy, reliability and tangibility have highly influenced expectation and perception level of patients in utilizing primary health care centre.

6.2 Testing of Hypotheses
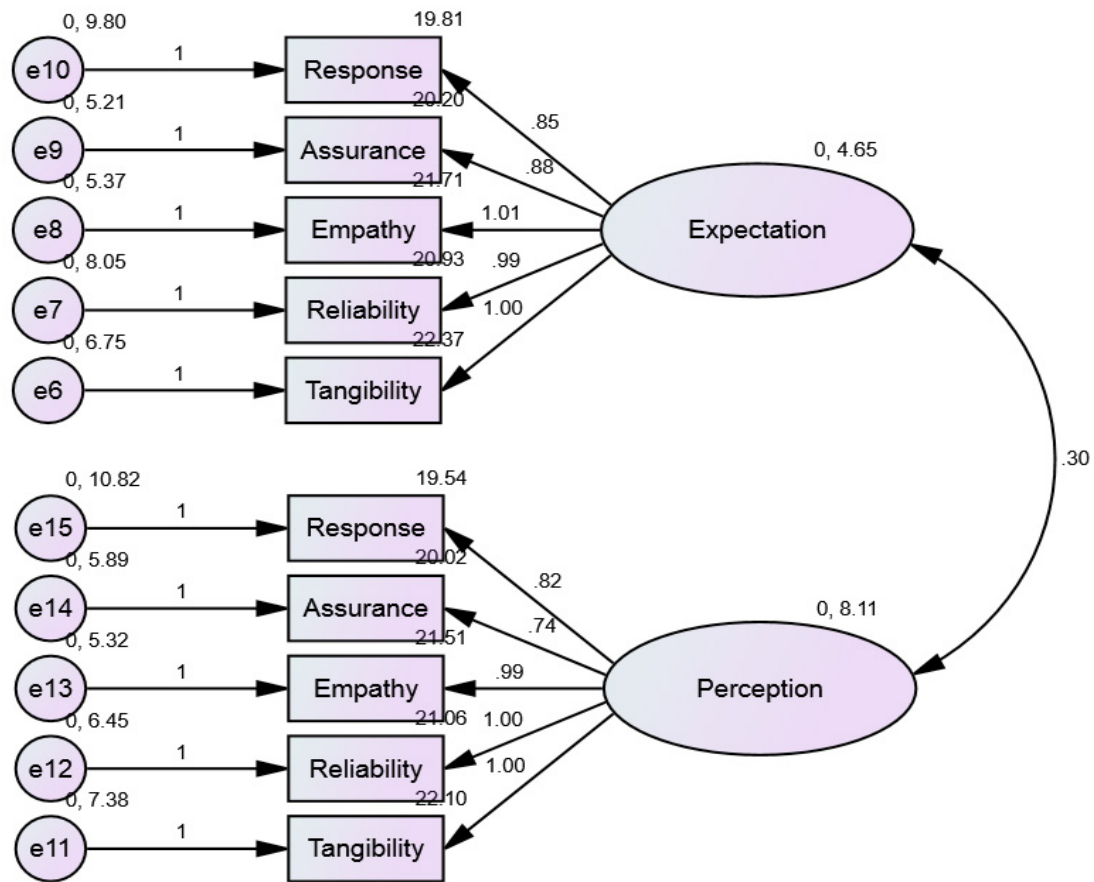
Table 5shows the proof of the hypotheses testing.

Figure 2. Resulted Hypotheses Model

Table 4. Regression Weights

S. No.	Measured Variables		Latent Variable	Estimate	S.E.	C.R.	P
1	E1	<---	Expectation	1.000			
2	E2	<---	Expectation	.994	.127	7.836	***
3	E3	<---	Expectation	1.011	.120	8.455	***
4	E4	<---	Expectation	.878	.108	8.135	***
5	E5	<---	Expectation	.853	.124	6.880	***
6	P1	<---	Perception	1.000			
7	P2	<---	Perception	.997	.088	11.323	***
8	P3	<---	Perception	.988	.085	11.638	***
9	P4	<---	Perception	.742	.073	10.133	***
10	P5	<---	Perception	.818	.091	8.986	***

Source: Computed from survey data

Table 5. Testing of Hypotheses

Hypotheses	Hypothetical Relationship	Result
H1 : There is a positive impact of response on expectation and perception	Positive	Confirmed
H2 : There is a positive impact of assurance on expectation and perception	Positive	Confirmed
H3 : There is a positive impact of empathy on expectation and perception	Positive	Confirmed
H4 : There is a positive impact of reliability on expectation and perception	Positive	Confirmed
H5 : There is a positive impact of tangibility on expectation and perception	Positive	Confirmed

7. Key Finding

From the path diagram, the measured variables with latent variable of expectation and perception are having positive relationship and also significant at 1 percent level. The analysis of the model, from the viewpoint of the expectation and perception among the patients, suggests that the variables such as response, assurance, empathy, reliability and tangibility are showing significant impact on the expectation and perception of the patients. Structural equation modeling analysis shows that the measured variables with latent variable of expectation and perception are having positive relationship and also significant at 1 percent level.

8. Suggestion

The study found that the variables such as response, assurance, empathy, reliability and tangibility are showing significant impact on the expectation and perception of the patients. So, it is suggested that the periodical assessment is essential to prove the standard of quality of services. It helps to fulfil the expectation of patients in utilising PHCs. At the earlier, the policy makers should set up the standard for primary health care centres.

9. Conclusion

The study has exposed that the service quality variables namely, response, assurance, empathy, reliability and tangibility are significantly impacting the expectation and perception of the patients relying on PHCs in Erode district of Tamil Nadu. Hence, to assure dispensing sufficient health care facilities inclusive of the services of the medical and paramedical professionals in PHCs, continuous observing, regulating and controlling of the functions of PHCs is very much essential. Also providing primary sanitation in both rural and urban localities must be made mandatory. Besides, the government should intensively disseminate health education to the mass in villages. On the whole, nurturing better health of the citizens, especially the rural residents, is the utmost obligation of the duty-bound government.

10. References

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