Chapter 6

Redesigning the Service Process for Total Quality in Government Hospitals: Evidence from Kwara State

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Additional information is available at the end of the chapter

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1. Introduction

Total Quality Management (TQM) application in Public Health sector is recent and it has begun to redefine the administrative infrastructure and mindset of managers in different fronts. The old management models in public sector that hardly differentiate between management and leaderships are now beginning to change through identification and focus on meeting and exceeding the needs of customers (citizens). The application of TQM tools and techniques has begun to re-orientate managers and policy makers' arbitrary command and control methodology with strong emphasis being placed on leadership, teamwork and continuous learning. The old culture of top-down management where the subordinates must wait endlessly for their superiors before they can perform has impinged the implementation of TQM in government hospitals.

Research has found that 4 percent of hospital patients suffer an avoidable injury, 7 percent experience medication error, and 45 percent experience some medical mismanagement *(Andrew et al 1977).* In a recent study conducted by *Lagasse et al* (1995), 8 percent anesthetics error were found to be due to human error and 92 percent due to system error.

Health care organizations therefore can use service process redesign to minimize the system error. The quality of service delivered is contingent on the service process that is put in place in organizations. Service process has been therefore identified as the core of service delivery, not only frequently visible to customers (patients), but often constituting the very service itself (Johnston and Clerk, 2000). Unfortunately, many private organizations and public outfits devote little attention to understanding and designing this very aspect of their businesses.

Once the service process is erroneously designed, it has a way of affecting the quality of service delivered to the patients of government hospitals.

Health care redesign can be broadly defined as thinking through from scratch, the best process to achieve speedy and effective care from a patient perspective, identifying where delays, unnecessary steps or potential error are built in the process and then redesign the process to remove them and dramatically improve the quality of care (Locock, 2003). Service process redesign therefore is used to tackle variation in the quality of care and improve patients' satisfaction. Service process redesign is therefore a radical challenge to traditional assumptions and practices which involves thinking through the best process to achieve speedy and effective patients' care.

Redesigning the service process in an organization therefore involves assessing how the current functions, structures and responsibilities are operating and identifying what would be done to improve the efficiency and effectiveness of operation within the unit.

Ching chow (2003) conducted a survey for a hospital to identify the major obstacles to TQM implementation in health care industry as;

a. Organizational structure: Traditionally, the health care organizations use functional-hierarchical structure as the base which may cause poor communication between sections.
b. Leadership style: Most leaders of health care organizations are specialists in their profession with authority. Hence, the unchallengeable leadership style does not allow health care professionals to accept the opinions of their subordinates.
c. Organizational culture: The health care organizational structure and leadership style create a highly hierarchical, bureaucratic and authoritarian culture which conflict with the idea of empowerment of subordinates.
d. Professional autonomy: The physicians, medical technicians, and clinical professionals work independently in their fields which makes the issue of teamwork (which is the basis of TQM), impossible. Different departments might have different views on TQM.
e. Lack of Consensus: Misunderstanding might ensue between the physicians with respect to application of TQM. While TQM practices may be considered as significant for administrative efficiency and service quality, it cannot be applied for medical treatment. This explains why health care professionals do not have strong enthusiasm for its adoption.
f. Internal requirement domination: The health care organizations tend to focus on their internal requirement for medical treatment rather than the patients' needs. The ethics of the profession are strictly followed. The emergency situation of a patient into the hospital will not make a physician to violate the process of diagnosis.
g. Efficiency-oriented: Efficiency is the hallmark of medical profession and not how much income they would make from surgeries and chemical treatments. The objective is qualitative performance. Hence, such bias tends to affect their understanding of patients' conditions and improper judgment resulting in poor quality.

h. Manpower shortfall: Insufficient manpower in hospitals means that professional specialists are overloaded in their work. Since the physicians are much more involved in their routine work, participating in TQM implementation is considered as an added responsibility that they may not have time for.

The objective of this paper therefore is to investigate how redesigning of the service process can engender total quality in Kwara state government hospitals as well as removing barriers to TQM implementation.

2. Problem statement

The implementation of Total Quality Management in Kwara State Hospitals is fraught with some difficulties. These difficulties have made the attainment of quality goals by the government elusive. TQM has been described as a co-operative form of doing business which relies on the talent and capabilities of both labour and management to improve quality and productivity continually using teams (Plek 1995). This definition has three ingredients necessary for TQM to flourish in any service organization. They are:

i. Participative Management
ii. Continuous Process improvement and
iii. The use of Teams.

Redesigning the hospital process falls under the second ingredient. Hence, successful TQM implementation is dependent on employee participation, employee training, technology, employee-patients' relationship, drug administration, employee motivation and care takers.

The findings and pricing, supervision conformity to standard and feedback from patients are other factors that infringed the hospital process. This study sees redesigning of the hospital process as a leeway to checkmate the poor quality service of the hospitals with the intent of satisfying the patients of the hospitals.

3. Methodology

There are sixteen government hospitals in Kwara state which constitute the population. But for the sake of the study, 4 specialist hospitals in Ifelodun, Ilorin East, Moro and Offa are the sampled hospitals for this study. This is because these four specialist hospitals constitute the referral centres for General Hospitals and Community health centres that exist in the state.

50 copies of questionnaire were served to 50 patients per sampled hospitals. A Likert scale of 5 points was used to measure the level of agreement and disagreement by the respondents. The response format is as follows:

SA – Strongly Agree
A – Agree

N – Not sure
D – Disagree
SD – Strongly Disagree

Frequency Distribution was used to analyze the data collected and to examine the pattern of response to each variable under investigation.

4. Data analysis

Since the study seeks to investigate how redesigning the service process can engender quality service in Government hospitals which will consequently affect the patients' satisfaction, the frequency counts were used to capture the responses of the respondents. From the gender distribution of respondents below

Specialists Hospitals	Male	Female	Total
Ifelodun	18	32	50
Ilorin East	21	29	50
Moro	22	28	50
Offa	26	24	50
Total	**87**	**113**	**200**

Source: Administered questionnaire 2012

Table 1. Gender distribution of respondents

From the table above, 43.5% of the respondents were males while 56.5% were females. In other words, across the four local governments where the specialist hospitals were, there were more female patients than males. This is actually evident from the table as it was only in Offa specialist hospital that we had more male patients than females. This trend of female patients' dominance except in Offa LGA may not be unconnected with gynecological related sicknesses. The eagerness of the patients to fill the questionnaire was a sign of service dissatisfaction which in turn suggests the need for redesign of the service process.

Age classification	Frequency (n)	Percentage (%)
21-30 years	40	20.0
31-40 years	30	15.0
41-50 years	92	46.0
51-60 years	15	7.5
61 and above	23	11.5
Total	**200**	**100.0**

Source: Administered questionnaire 2012

Table 2. Respondents' age-range

From the respondents' age classification above, 46.0% of the respondents were within the age of 41-50 years while 20% of the respondents fall within the age range of 21-30 years. The reason for the high rate of patients within the 41-50 years category may not be unconnected with the Menopausal issues since the respondents are female-dominated. 81% of the respondents were between the age of 21 and 50 years which is an indication of level of literacy of the respondents. In other words, they seem to understand the process of service quality and could say categorically whether they are satisfied or not.

Marital status	Frequency	Percentage (%)
Single	50	25.0
Married	100	50.0
Widowed	20	10.0
Divorce	30	15.0
Total	**200**	**100.0**

Table 3. Respondents' marital status

With reference to the above table, 25% were singles, 50% married, 15% divorcee & 10% widows and widowers.

Process infringements	Frequency	Percentage (%)
Employees participation	18	9.0
Employees Training	20	10.0
Technology	14	7.0
Employee-patients' relationship	25	12.5
Drug administration	16	8.0
Employees motivation	20	10.0
Care-takers	26	13.0
Language barriers	12	6.0
Funding and pricing	14	7.0
Supervision	10	5.0
Conformity to standards	15	7.5
Feedback from patients	10	5.0
Total	**200**	**100.0**

Source: Administrated Questionnaire 2012

Table 4. Distribution of Respondents on service process infringements

Four process infringement factors featured prominently in the respondents' responses to service process infringements. They are caretakers, employee-patients' relationship, employees' training and employees' motivation. The care-takers i.e., those who stay with the patients in the hospital constitute 13% of the process infringements which in-turn, impact

negatively on the quality of services in the specialist hospitals. This is followed by employee-patients' relationship. This may be referred to as the interpersonal factors that boarder on Professional-patients' relationships. Employee training and employee motivation can also affect the quality of service where they are not available.

Process infringement factors	Percentage (%)	Ranking
Care-takers	13.0	1
Employee-patients' relationship	12.5	2
Employees' training	10.0	3
Employees' motivation	10.0	3
Employees' participation	9.0	5
Drug administration	8.0	6
Conformity to standards	7.5	7
Technology	7.0	8
Funding & pricing	7.0	8
Language barriers	6.0	10
Supervision	5.0	11
Feedback from patients	5.0	11
Total	**100**	

Table 5. Ranking of process infringement factors

Methods	Frequency	Percentage (%)
Detection	20	10
Process mapping	50	25
Statistical process control	60	30
Failsafing	70	35
Total	**200**	**100**

Source: Questionnaire Administered 2012

Table 6. Distribution of respondents on methods of overcoming the process infringement factors

From the data on table 6, 70 respondents favoured 'failsafing' which is a simple but effective technique to reduce the likelihood of process failure and ensure that both employees and patients do the right thing. The 70 respondents accounted for 35% solution to process infringements. 30% of the process infringements can be overcome with statistical control.

5. Hypothesis testing

The only hypothesis tested in this study is to find out whether redesigning the service process has a way of enhancing total quality in Kwara state specialist hospitals.

Ho: Redesigning the service process does not affect quality of services in government hospitals.

H1: Redesigning the service process significantly affect the quality of service.

Options	SA	A	N	D	SD	Total
Yes	110	12	3	10	6	141
No	20	15	5	11	8	59
Total	**130**	**27**	**8**	**21**	**14**	**200**

Table 7. Distribution of respondents on redesign of the service process for quality service

Table 7 is the observed value of respondents of service process redesign and quality service. To obtain the expected value, we simply use the formulae

Fe=Row total x Column total/Grand total

fo	fe	(fo-fe)	(fo-fe)2/fe
110	91.65	336.72	3.67
12	19.04	49.56	2.60
3	5.64	6.96	1.23
10	14.8	21.12	1.42
6	9.87	14.98	1.51
20	13.4	338.56	8.82
15	7.96	49.56	6.22
5	2.36	6.96	2.95
11	6.19	23.14	3.74
8	4.13	14.97	3.62
		Total X2 =	**35.8**

Table 8. Frequency of service process redesign on quality

From the table 8 above, the X2 calculated is 35.78 while the X2-tabulated at 5% significance level and at (2-1) (5-1) = 4 degree of freedom i.e. 14.9. Since X2 calculated is greater than X2 tabulated, we reject the null hypothesis that says redesigning the service process does not affect the quality of service and accept the alternative hypothesis that says redesigning the service process significantly affect the quality of service rendered by hospitals.

From the hypothesis tested, redesigning the service process has a way of affecting the quality of service as well as patients' satisfaction.

6. Recommendations

As we have rightly observed in the literature review, all stakeholders in health care have a role to play in ensuring that the process infringements are checkmated and minimized.

The following recommendations are important for the improvement of the service process:

i. The dichotomy between doctors and nurses in terms of professionalism which make certain area of Medicare a 'no go area' for nurses must be checked, so that when doctors are not available, the nurses can to a certain extent come in to save the life of the patients.
ii. Employees' training and refresher courses are very important to sensitize the workers on latest technological evolution.
iii. Employees-patients relationship must be cordial because whatever injury suffered by the patient has a way of affecting the hospitals.
iv. Care-takers that will stay with the patients must be educated such that a wrong administration of drug is not given. Alternatively, the hospital employees particularly the nurses should be charged with the responsibility of administering the drugs.
v. Where language barrier is to infringe the service process, an interpreter may be immediately hired to serve as a stop-gap for wrong diagnosis.
vi. Government should appoint supervisors or agency who will not compromise quality for material gain. Those supervisors and agencies can interact with the patients to know what their misgivings are.
vii. The agency in (IV) above should create a way through which those whom have been discharged from the hospital will give a feedback to the hospitals.
viii. Government as a matter of policy should develop a motivational formulae that will serve as an impetus for greater and efficient service.
ix. Government should release funds for the management of hospitals

7. Conclusion

This paper is of the opinion that what we refer to as infringement factors to the service process in developing nations like Nigeria may not actually be the infringement factors in developed nations. Hence, this study would provoke further investigations into the service process infringements in developed world. If patients' satisfaction is the basis for establishing specialist hospitals, anything that will make that objective unrealizable must be removed. This exactly is what service process redesign intends to achieve.

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