PLANNED CHANGE AND SERVICE QUALITY IN A HEALTH CARE ENVIRONMENT: ASSESSING OUTCOMES

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Abstract

This study assesses the outcomes of a process of planned change undertaken in a health care hospital environment in Lesotho in terms of service quality. A sample of 143 clinical and non-clinical employees from three of the largest regional hospitals within the Ministry of Health in Lesotho was drawn using cluster sampling. Data was collected using an adapted version of SERVQUAL whose psychometric properties were statistically determined. Data was analyzed using descriptive and inferential statistics. The results indicate that the process of transformation significantly contributed to all the sub-dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) except the process before restructuring which did not contribute to responsiveness, assurance and empathy respectively. Furthermore, all the sub-dimensions of the process of transformation significantly impact on the different sub-dimensions of service quality, although not optimally.

Keywords: Planned Change, Service Quality, Tangibles, Reliability, Responsiveness, Assurance, Empathy

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INTRODUCTION

Like any organization, health care institutions too need to be efficient in doing the right things, by attaining the optimal use of available resources and in the ratio of outputs to inputs. In economic terms, this implies absence of waste or using the economy's resources as efficiently as possible in order to satisfy patient's needs and expectations. Accomplishing this, however, requires knowledge about the nature and functioning of the organization and continuous and planned change in order to bring about flexibility, innovation, patient satisfaction, future success and organizational survival. Fundamental to patient satisfaction in a dynamic and competitive environment, is the need to have a patient focus, to constantly monitor their perceptions of the way in which their medical needs and expectations are being fulfilled and of the quality of service they receive. This study aims to assess the outcomes of a process of planned change undertaken in a health care hospital environment in Lesotho in terms of service quality.

Planned change and competitive restructuring

Today's work environments have undergone dramatic change as a result of economic recessions, new information, technology, industrial restructuring and accelerated global competition (Hartley, Jacobson, Klandermans & van Vuuren, 1991; Hellgren, Sverke, & Isaksson, 1999). Therefore, change is a way of life and the ability to manage change is a key factor in organizational survival (Osland, Kolb & Rubin, 2001). Change itself does not ensure success but what is critical is the ability to sense, adjust, respond to and implement change at speed in order to ensure strategic and competitive advantage (Robertson, 2002). The nature of change needed must also be analyzed to determine its likely magnitude and potential impact. The successful determination of the nature of change at an early stage of the change cycle should indicate the most appropriate means of managing the situation or of transforming.

Organizational transformation is concerned with strategic change. It is about moving to a future state, which has been defined generally in terms of strategic vision and scope (Armstrong, 1999). Planned change involves the deliberate actions designed to move an organization or part of it from one state to another (Senior and Swailes, 2010; Pradhan, 2009). Organizations transform to align company structure with strategy, an action that can be necessitated either by a change in strategy or by a structure that has drifted away from an earlier fit with strategy. In order to deliver a consistent set of satisfying experiences that ensures high quality, the entire organization needs to be focused on the task and on quality and the system must be designed to support that mission (Gilbert & Parhizgari, 2000). Recent organizational

transformations have included the redrawing of divisional boundaries, flattening of hierarchic levels, spreading of spans of control, reducing product diversification, revising compensation, streamlining processes, and reforming governance (Bowman, Singh, Useem & Bhadury, 1999). Employees resist transformation for various reasons, namely, an individual's predisposition towards change, misunderstanding and fear of the unknown, climate of mistrust, fear of failure, loss of status and job security, peer pressure and group relationships, personality conflicts, poor timing and non-reinforcing rewards, and selective perception and retention (Ndlovu and Brijball Parumasur, 2005). Therefore, an integral part of a successful change process is for managers to recognise that transformation is as much a function of an individual's behaviour as it is of the strategies, structures and systems that top management introduces (Ghoshal & Bartlett, 1996). The success and failure of an organization results from what employees do or fail to do; hence, planned change is concerned with the changing behaviour of the individuals within an organization (Robbins, Odendaal & Roodt, 2009).

Lew and Eekhout (2004) contend that change should be managed at both the personal and organizational levels. They argue that an individual should be able to manage change at a personal level before he or she can think of managing change at the organizational level. Individuals within an organization have to align their interest, needs and competencies with the existing demands in the organization as well as the ability to create relationships of success. Individuals can adapt to changing environments and situations by incorporating their attitudes and beliefs about change together with the right skills. Managers have to learn to focus on individuals in order to optimise the change management process (Lew & Eekhout, 2004). McDonald (2010) describes change as a personal process and emphasizes the need to allow individuals to make an informed decision based on transparency of information that support the awareness of dissatisfaction they feel within themselves. In this regard, change becomes a social process that is continuous rather than following a designed program of change. This continuous change will therefore, be driven by social technologies that allow people to work together to understand the new ways of working. The emotional aspect of the employees has to be taken into consideration when change takes place. However, the health care managers should not only have a better understanding of change in terms of both the emotional and situational aspects but should also be able to analyze the nature of change and its magnitude to realize their organizational goals.

Stable (2009) describes that it has never been easy to implement change in the health industry. He further explains that the complex nature of the health industry may not allow planned change to be executed in a manner that has been predicted. He points out that planned change comes in whereby an organization wants to focus on how to implement change in a successful manner. This involves arrangements and activities that the organization puts in place to achieve intended outcomes as a result of change. Cummings and Worley (2001) advocate that the general model of planned change involves four stages which indicate the sequence of events from entering and contracting, to diagnosing, planning and implementing, to evaluating and institutionalising change. Planned change is advantageous for the reason that there is greater assurance of the outcomes and managers are better able to provide support for the employees in the process of change.

Change interventions

Various intervention strategies and models of change exist. Whilst it is not the aim of this study to review available models, key aspects of change interventions that pertain to changing health care environments will be identified.

Bryant's (2011) model distinguishes between change agents (for example, board of directors, senior managers or project managers), change implementers (project coordinators or audit staff) and the change recipients (staff) who need to buy into the change that must take place. The model emphasizes the need to manage resistance to change and to plan and implement change. In the health care sector, the change recipients have to be informed on how change will assist the patient (Bryant, 2011). However, Hayes (2002) in his eight steps of change management argues that the first step should involve recognition, that is, the reasons or factors that necessitate the change both internally and externally and entails the complex process of perception, interpretation and decision making. Hayes (2002) further mentions that organizations should translate the need for change to desire for change. He mentions that a deeper diagnosis should be done of the need for change as well as what is expected in the future.

Kotter and Cohen (2002) demonstrate a model that consists of eight steps which include establishing a sense of urgency, building the guiding team, creating a vision for change, communicating the vision, removing obstacles, creating a short term win, building on change and anchoring the changes in corporate culture. They further note that it is very important for change managers to show the employees the prevailing situation that requires the need for immediate change and motivate employees to accept change. The model also stresses that change managers have to communicate clearly to the employees as to why and how change will take place. Kotter's model concentrates on both the situational and psychological approaches. This implies that the focus is not only based on organizational needs but on the individuals' as well. On the other hand, Graetz,

Rimmer, Lawrence and Smith (2002) believe that the theory of Lewin remains relevant to today's changes. Lewin's phases of change involves unfreezing, change or transition and freezing or refreezing. In this model, the focus is on explaining the stages that individuals go through during the change. Firstly, individuals go through personal transition where they experience shock, denial and anger. In the moving stage, individuals begin to accommodate change as they are assisted to understand the need for change. It also involves cultural change in order to gain acceptance of new norms and values. The refreezing point is whereby individuals accept change and therefore allow the establishment of new norms, values, structures and processes. This is the phase whereby change managers have to ensure cultural reinforcement. Prosci and ADKAR (2011) contend that change consists of three stages, namely, preparing for change, managing change and reinforcing change. Implementation plans should be in place to indicate how change will take place and feedback mechanisms have to be executed to ensure sustainability (Prosci & ADKAR, 2011). Salahudeen (2010) considers the result of change management in terms of three aspects: people, culture and processes and expresses that change managers should realize the importance of the SMART (Specific, Measurable, Achievable, Realistic, Time bound) vision and mission statement of an organization. She believes that the SMART vision values key performance indicators and allows the organization to measure and manage fundamental areas that contributes to success which in turn provides the employees with an explicit picture of what the organization expects them to achieve. Moran and Brightman (1998) indicate that there are four change levers, that is, things that must change, namely, beliefs, values, skills and behaviours. Individuals' change levers respond differently to the four levels of change, namely, personal, professional, organizational and structural. Since people react differently in different situations, change managers should set specific targets for them which will aid in making change tangible in both personal and organizational performance as this will help to increase their motivation with regard to change.

All the models share the similar view that organizations must first identify the need for change before engaging into the process of change, plan for implementation, reinforce change and ensure proper communication with the stakeholders. Taking cognisance of the key aspects of the proposed models during a process of transformation enables change managers to review progress, to ensure that the restructuring is moving the organization towards desired goals, which in a service environment, predominantly entails enhanced service delivery and quality.

Service quality

Health care is among government priorities as it is in the interest of every country to have a healthy nation. Therefore, efficient health services are fundamental to every health system (WHO, 2012) and identifying strategies to improve health services is vital (Loevinsohn & Harding, 2005). There are some key resources that health service delivery relies on, such as motivated staff, equipment, information, finance and adequate drugs. Some of the aspects that assist in health service delivery are improving access, coverage and quality of health services and these can be determined by the ways in which services are organised and managed and on incentives influencing providers and users (WHO, 2012). Improving health service delivery requires efforts from stakeholders within the health systems such as policy makers in the ministries of health, finance and public administration, health service managers and workers, public and private providers, clients as well as the communities (WHO, 2012) who need to work in tandem in order to overcome constraints in delivering health care services.

Constraints in delivering health care services

Oliveira-Cruz, Hanson and Mills (2003) maintain that some of the constraints within health service delivery operate on five levels, namely, community and household level, health services delivery level, health sector policy and strategic management level, public policies cutting across sectors and, environmental and contextual characteristics. Constraints that fall under health service delivery include shortage and distribution of human resources (qualified staff) and finance, poor technical guidance and supervision, inadequate drug and medical supplies, lack of equipment and infrastructure as well as the use of information (Oliveira-Cruz *et al*., 2003; Travis, Bennett, Haines, Pang, Bhutta, Hyder, Pielemeier, Mills & Evans, 2004). Oliveira-Cruz, Kurowski and Mills (2003) emphasize that improved health care services can be realized through national and international commitment to enlarge access to priority health interventions.

Some of the challenges faced in health care delivery systems are improving quality, increasing access and reducing costs (Andaleeb, 2001). The lack of effective communication also poses problems (McIntyre and Klugman, 2003) not only among health workers, or in a process of restructuring but also between a health worker and a patient (Jacobs, Lauderdale, Meltzer, Shorey, Levinson & Thisted, 2001) as a result of language differences and illiteracy and the lack of bilingual health care providers (Kulwicki, Miller, and Schim, 2000).

Strategies to strengthen and improve health services delivery

Peters, EL-Saharty, Siadat, Janovsky, and Vujicic (2009) suggest that some of the strategies that can be implemented to strengthen the health services are the expansion and involvement of community health workers, the establishment of user fees and community management, decentralisation, performance incentives, social marketing and re-organising outreach workers. Nauert (2002) mentions that the health care industry has been denying patients quality health services and there are certain business strategies that the health industries had to put in place to curb such poor service delivery. Such business initiatives include key components like environmental assessments of market wants, needs and demands, strengths and weaknesses as well as external threats and opportunities of the health industries. The other key components incorporate system linkages with key physicians and other providers and the strengthening of executive direction to enhance business performance (Nauert, 2002). According to Healey and Kuehn (2011), technology plays an important role as an innovation element in health service delivery for the reason that records are easily kept and electronic communication assists in collecting, analysing and disseminating health related information. The other two innovation elements are a business model for a health care system in which more emphasis will be on wellness and prevention and, performance outcomes and development of a value network that is sustainable and will probably need an external catalyst. Battacharyya, Khor, McGahan, Dunne, Daar, & Singer (2010) suggest some of the strategies that can be implemented to improve health services especially for the poor. They mention marketing activities that need to take place within organizations such as social marketing, tailoring services to the poor, franchising, high volume and low unit cost. Social marketing involves implementing marketing techniques to attain behavioural change by creating training and peer education programs that concentrate on behavior change in schools, prisons, the sex industry and the public. Tailoring services to the poor focuses on tailoring services and products towards the needs of the poor while franchising, high volume and low unit cost concentrate on the enlargement and sustainable distribution of products and services of specific quality in reproductive health with low costs. In this regard, Brinkerhoff (2003) highlights the issue of equity and maintains that an important government responsibility is to remedy health care market failures through regulation as well as resource allocation as it is clearly evident that poor communities often suffer from a lack of resources.

Battacharyya *et al*. (2010) added that other marketing activities involve operating activities and financial strategies which aim to provide products and services at lower costs while maintaining quality of services. These financial strategies include lower operating costs through simplified medical services, high volume and low unit costs, cross subsidisation and income generating mechanisms. Leggat, Bartram, Casimir and Stanton (2010) similarly emphasize that improvement in health service delivery substantially relies on job satisfaction and empowerment of health workers and, the provision of incentives (Duncan and Breslin, 2009). Similarly, Mukherjee and Malhotra (2006) maintain that employees that perform well at work are those who have role clarity which provides the desired focus, are given autonomy (freedom to plan their work in terms of how they serve customers and what they can do to provide services), who participate in decision making as it serves as empowerment and who receive psychological support from supervisors as this motivates them to improve service delivery.

Stable (2000) argues that health care services can be improved through transparent processes that take place during the engagement of the new model for effective delivery of service. Stable (2000) highlights four phases that should be considered for effective service delivery. These phases are identification of a problem, community profile, implementation and evaluation. Stable (2000) advises that prior to the engagement of the new model, assessment of the existing problem that led to change should take place. The community profile needs analysis has to be conducted as well as identifying the current services available. The community profile in this regard refers to the population group to whom the services are delivered. Implementation can only be done when the problem has been identified and assessment in terms of community needs has taken place. In this phase, services required, quality of services, costs as well as challenges experienced with the existing model should be known. The last phase is evaluation and it should be based on the objectives of the organization; in other words, the expectation of what is required from the new model should be clear. Effective communication and consultation are key elements that need careful consideration in any change process taking place in an organization (Stable, 2000) and are much needed in health service delivery (Conner & Finnemore, 2003; Hua, Sher & Pheng, 2011; McCallin, 2001; Robinson, Gorman, Slimmer & Yudkowsky, 2010) as effective communication across the structural departments within an organization enhances successful implementation of its plans (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004).

Campinha-Bacote (2002) acknowledges the various models that have emerged to overcome the challenges of health service delivery and believes that the cultural competence model may add more value in health service delivery. She explains her model as a continuous process whereby health care providers should make an effort to attain the ability to work within the cultural context of the customer. The model

needs health workers to be culturally competent. The model is categorised into five parts, namely, cultural awareness, cultural knowledge, cultural skill, cultural encounters and cultural desire.

Evidently, simply allocating more resources and finances towards health services do not necessarily address the problem of service delivery (Loevinsohn and Harding, 2005) as attitudes of health care workers and service providers play a significant role in ensuring the delivery of quality service.

Measuring the quality of service

Service quality is defined as "consumers' assessment of the overall excellence or superiority of the services" (Zeithaml, Berry & Parasuraman, 1993 cited in Siddiqui & Sharma, 2010: 172) or "the difference between customers' expectations for service performance prior to the service encounter and their perceptions of the service received" (Dehghan, Zenouzi & Albadvi, 2012: 5). According to Ramsaran-Fowdar (2008), theoretical perspectives on service quality were developed in 1980s; there are two types of service quality and they are technical quality which refers to core service delivery or service outcome and, functional quality which involves service delivery processes or the manner in which customers perceive the service. Lu and Liu (2000) add that in the health care environment, technical quality involves factors such as average length of stay, re-admission rates, infection rates and outcome measures. Conversely, functional quality includes factors like doctors' and nurses' attitudes towards patients, cleanliness of facilities and quality of food given to patients. Jensen and Markland (1996) explains that improving quality of service involves several components. They clarify that quality should not be centred on services only but also on who provides those services because good systematic approaches can end up being on paper rather than being implemented if the people who should implement them are not involved.

Jensen and Markland (1996) advocate that organizations should invest their time on learning about quality measurement systems like SERVQUAL and identify the one that will best suit the needs of the organization. Babakus and Mangold (1992) share that SERVQUAL has been known for its potential usefulness in the hospital environment and mention that manufacturing and service industries find quality to be the main determinant of cost reduction, market share and return on investment. Babakus and Mangold (1992) further note that Zeithaml, Berry and Parasuraman (1988) lately developed the SERVQUAL measurement instrument that can be used in different service industries and includes only five elements of service quality which assess the quality of the outcome of the service experience. SERVQUAL can be used internally to understand the employees' perceptions about the service quality with the aim of improving services (Carrilat, Jaramillo & Mulki, 2007; Fedoroff, 2012) and is useful in hospital environments (Babakus & Mangold, 1992; Lu & Liu, 2000). This broadly accepted instrument comprises of five dimensions: (1) tangibles - physical facilities, equipment, and appearance of personnel (2) reliability - ability to perform required services dependably and accurately (3) Responsiveness - willingness to assist customers and provide prompt services (4) assurance - knowledge and courtesy of employees and their ability to inspire trust and confidence and (5) empathy - caring and individual attention given to the customers (Berry, Parasuraman & Zeithaml, 1994; Carrillat et al., 2007; Chowdhary & Prakash, 2007; Munusamy, Chelliah & Mun, 2010; Saraswathi, 2011; Siddiqui & Sharma, 2010).

Health care service delivery is a challenge in many countries and health care organizations are trying to overcome the obstacles to improved health services. Health organizations need to be well informed in selecting strategies during a process of transformation so that they will be able to implement approaches that will best suit their situation. The first step would be to identify the problems that hinder efficient service delivery. Although health service delivery is still a challenge in many countries, especially developing countries, efforts should be made to combat ineffective service delivery.

RESEARCH DESIGN

Respondents

In this study, the population comprises of employees from three of the largest regional hospitals within the Ministry of Health in Lesotho who were in the employ of the organization from before the restructuring, making up a population of approximately 800 clinical and support staff. It must be noted that management for clinical and support staff is already included in the population of 800. The researcher used a sample of 143 employees. The adequacy of the sample was determined using the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.899) and the Bartlet's Test of Spherecity (1223.187, $p = 0.000$) for the three dimensions assessing the process of transformation, which respectively indicated suitability and significance. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (0.883) and the Bartlet's Test of Spherecity (1696.124, $p = 0.000$) was also used for the five sub-dimensions assessing service quality after the process of transformation, which respectively indicated suitability and significance. The results indicate that the normality and homoscedasticity preconditions are satisfied. A computer programme was used to select employees from the Ministry of Health staff list who were in the employ before and after the restructuring took place. Managers of the respective departments

distributed the questionnaires to the selected subjects during one of their weekly meetings.

The composition of the sample may be described in terms of age, gender, job category, tenure and education. With regards to age, 36.4% of the participants were between 26-35 years followed by those between 36-45 years (33.6%), thereby indicating that the majority of the sample (70%) was between the ages of 26-45 years old. There were more females (81.1%) than males (18.9%) and more clinical services staff (72%) than non-clinical services employees. The majority of the respondents served the organization for 11-20 years (33.6%), followed by 1-5 years (25.9%), followed by 6-10 years (23.8%) thereby indicating that 83.3% of the sample have a tenure of 1-20 years. The majority of the participants have a diploma (51%) and a further 27.3% hold a degree.

Measuring Instrument

Data was collected using a questionnaire that was adapted from both SERVQUAL developed by Parasuraman, Zeithaml and Berry (1988) and SPUTNIC (undated) and comprised of three sections. Section A comprised of biographical data relating to age, gender, job category, tenure and education and was measured using a nominal scale. Section B consisted of 15 questions pertaining to the perception of employees of the process of restructuring and there are sub-dimensions for every 5 items in this section, namely, process before restructuring, perceived impact of restructuring on service delivery and performance and the perception of employees of the process of restructuring in terms of outcome, strategies or interventions implemented. Section C consisted of 22 items pertaining to the perception of employees of the sub-dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) after the process of restructuring. Subjects were reminded that the items relate to their perceptions of the sub-dimensions of service quality *after* the process of restructuring. Sections B and C were measured using a five point Likert scale ranging from (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree to (5) strongly agree. In-house pretesting was adopted to assess the suitability of the instrument. Pilot testing was also carried out using 12 subjects, selected using the same procedures and protocols adopted for the larger sample. The feedback from the pilot testing confirmed that the questionnaire was appropriate in terms of relevance and construction.

Measures/statistical analysis of the questionnaire

The validity of the questionnaire was assessed using Factor Analysis. A principal component analysis was used to extract initial factors and an iterated principal factor analysis was performed using SPSS with an Orthogonal Varimax Rotation. In terms of the validity of Section B, the three dimensions of the process of transformation (process before restructuring; perceived impact of restructuring on service delivery and performance; perceptions of the process of restructuring in terms of outcomes, strategies and interventions implemented) were generated with eigenvalues greater than unity (4.257, 3.792 and 1.934). In terms of the validity of Section C, the five service quality dimensions (assurance, reliability, tangibles, empathy, responsiveness) were generated with respective eigenvalues being greater than unity (4.664, 3.056, 2.756, 2.601, 1.832). The reliability of the questionnaire was assessed using Cronbach's Coefficient Alpha which reflect very high levels of internal consistency and reliability for both Section B (Alpha = 0.925) and Section C (Alpha = 0.922).

Statistical analysis of the data

Descriptive (means, standard deviations) and inferential statistics (correlation, multiple regression) was used to evaluate the objectives and hypothesis of the study.

RESULTS

Perceptions of the process of transformation and its influence on service quality

The perceptions of healthcare employees regarding the process of transformation (process before restructuring; perceived impact of restructuring on service delivery and performance; perception of restructuring in terms of outcomes, strategies or interventions implemented) and its influence on the sub-dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) were assessed by asking respondents to rate the various aspects of the transformation process and service quality after the restructuring using a 1 to 5 point Likert scale. The results were processed using descriptive statistics (Table 1). The greater the mean score value, the more positive the perceptions of the process of transformation and of service quality after the process of restructuring.

Table 1. Descriptive statistics: key dimensions of the process of transformation

Dimension of the process of transformation	Mean	95 % Confidence Interval		Variance	Std. Dev.	Min	Max
		Lower Bound	Upper Bound				
Process before transformation	2.779	2.630	2.929	0.819	0.905	1	5
Perceived impact of restructuring on service delivery and performance	2.909	2.766	3.052	0.750	0.866	1	4.6
Perception of restructuring in terms of outcomes, strategies or interventions implemented	2.640	2.504	2.777	0.682	0.826	1	4.2
Dimension of service quality							
Tangibles	3.247	3.103	3.390	0.746	0.864	1	5
Reliability	3.105	2.974	3.237	0.627	0.792	1	4.6
Responsiveness	3.310	3.183	3.438	0.592	0.769	1	5
Assurance	3.338	3.256	3.495	0.516	0.718	1	4.75
Empathy	3.385	3.269	3.501	0.488	0.698	1	4.8

From Table 1 it is evident that the respondents have varying views of the process of transformation, which in descending level of mean score value is:

- The impact of restructuring on service delivery and performance (Mean = 2.909)
- Process before transformation (Mean = 2.779)
- Perception of restructuring in terms of outcomes, strategies or interventions implemented (Mean = 2.640).

Furthermore, from Table 1 it is evident that the respondents have varying views of the sub-dimensions of service quality after the process of transformation, which in descending level of mean score value is:

- Empathy (Mean = 3.385)
- Assurance (Mean = 3.338)
- Responsiveness (Mean = 3.310)
- Tangibles (Mean = 3.247)
- Reliability (Mean = 3.105)

Whilst respondents have the most positive view of the impact of restructuring on service delivery and performance and the impact of restructuring on the empathy sub-dimension of service delivery, when compared against a maximum attainable score of 5 it is evident that there is need for improvement in each of the sub-dimensions of the transformation process and each of the sub-dimensions of service quality after the restructuring.

Intercorrelation between sub-dimensions of the process of transformation and the sub-dimensions of service quality

The sub-dimensions of the process of transformation and those of service quality were correlated (Table 2).

Hypothesis 1:

The sub-dimensions of the process of transformation (process before restructuring; perceived impact of restructuring on service delivery and performance; perceptions of restructuring in terms of outcomes, strategies or interventions implemented) significantly correlate with the sub-dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) respectively.

Table 2. Correlation: sub-dimensions of the process of transformation and the sub-dimenions of service quality

Sub-dimensions of service quality	r p	Sub-dimensions of the process of transformation		
		Process before restructuring	Perceived impact of restructuring on service delivery and performance	Perceptions of restructuring in terms of outcomes, strategies or interventions implemented
Tangibles	r **p**	0.390 **0.000***	0.298 **0.000***	0.374 **0.000***
Reliability	r **p**	0.359 **0.000***	0.362 **0.000***	0.416 **0.000***
Responsiveness	r **p**	0.090 **0.287**	0.274 **0.001***	0.261 **0.002***
Assurance	r **p**	0.078 **0.354**	0.240 **0.004***	0.288 **0.000***
Empathy	r **p**	0.152 **0.071**	0.224 **0.006***	0.317 **0.000***

* $p < 0.01$

Table 2 indicates that the two sub-dimensions of the process of transformation (perceived impact of restructuring on service delivery and performance; perceptions of restructuring in terms of outcomes, strategies or interventions implemented) significantly correlated with all the sub-dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) as perceived by employees after the process of restructuring respectively at the 1% level of significance. The process before restructuring, however, only correlates with two sub-dimensions of service quality (tangibles, reliability) at the 1% level of significance and not with the remaining three sub-dimensions of service quality (responsiveness, assurance, empathy). Hence, hypothesis 1 may only be partially accepted at the 1% level of significance.

Impact of sub-dimensions of the process of transformation on the service quality

The impact of the sub-dimensions of the process of transformation on the sub-dimensions of service quality were assessed using multiple regression (Table 3).

Hypothesis 2:

The process of transformation (process before restructuring; perceived impact of restructuring on service delivery and performance; perceptions of restructuring in terms of outcomes, strategies or interventions implemented) significantly impacts on service quality ((tangibles, reliability, responsiveness, assurance, empathy).

Table 3. Multiple regression: process of transformation and service quality

Sub-dimension of service quality	Adjusted R Square	Dimension of process of transformation having the significant impact	Beta loading	p
Tangibles	0.193	Process before restructuring	0.445	0.000*
Reliability	0.185	Perception of employees of the process of restructuring in terms of outcomes, strategies or interventions implemented	0.46	0.000*
Responsiveness	0.128	Perceived impact of restructuring on service delivery and performance	0.484	0.000*
Assurance	0.084	Perception of employees of the process of restructuring in terms of outcomes, strategies or interventions implemented	0.300	0.000*
Empathy	0.113	Perception of employees of the process of restructuring in terms of outcomes, strategies or interventions implemented	0.345	0.000*

* $p < 0.01$

Table 3 indicates that the process of transformation impacts on the sub-dimensions of service quality in different ways and in varying degrees. Table 3 reflects that the process before restructuring accounts for 19.3% of the variance in tangibles. Furthermore, the perceived impact of restructuring on service delivery and performance accounts for 12.8% of the variance in responsiveness. In addition, the perception of restructuring in terms of outcomes, strategies and interventions implemented impact on reliability, assurance and empathy in varying degrees. The perception of restructuring in terms of outcomes, strategies and interventions implemented accounts for 18.5% of the variance in reliability, 8.4% of the variance in assurance and 11.3% of the variance in empathy. The results reflect that whilst the process before transformation impacts on tangibles, perceptions of the impact of restructuring of service delivery and performance impact significantly on responsiveness and perceptions of the process of transformation in terms of outcomes, strategies and interventions implemented impact significantly on reliability, assurance and empathy respectively. Hence, all the sub-dimensions of the process of transformation significantly contribute to enhancing the different sub-dimensions of service quality, although not optimally.

DISCUSSION OF RESULTS

The results (mean score values) reflect that the process of transformation has more or less an equivalent impact on the five dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy). Whilst the change management strategies may have been designed to improve all these sub-dimensions of service quality, these may have improved almost equivalently because the dimensions are not mutually exclusive as elucidated by Berry, Parasuraman and Zeithaml (1994).

The results of this study also indicate that the process of transformation significantly contributed to all the sub-dimensions of service quality (tangibles, reliability, responsiveness, assurance, empathy) except the process before restructuring which did not contribute to responsiveness, assurance and empathy respectively. The implication is that the process of transformation entailed interventions and changes that facilitated and supported the improvement in tangibles, reliability, responsiveness, assurance and empathy. However, the process before restructuring

may have lacked the communication of strategies that could have provided clarity on how responsiveness, assurance and empathy would be enhanced in order to ensure proper service delivery. Clearly, all aspects of the process of transformation has enhanced employee perceptions of improved reliability in service delivery. This flags an important benefit from the process of transformation as Berry, Parasuraman and Zeithaml (1994) emphasize that respondents rated reliability as the single most important feature in judging service quality, followed by responsiveness, assurance, empathy and tangibles. Arasli, Mehtap-Smadi and Katirciogiu (2005) maintain that reliability had the highest effect on customer satisfaction. Chowdhary and Prakash (2007) also found reliability to be the most important service delivery dimension but they believe that the importance of the determinants of quality for customers would differ across varying service types. They maintain that tangibles is more important for services with more tangible actions and that the importance reduces as one moves from services targeted at people to services targeted at possessions and indicate that the need for reliability is more for services with intangible actions. They also reflected that services targeted at possessions rather than at people will require greater reliability (Chowdhary & Prakash, 2007). Furthermore, Munusamy, Chelliah & Mun (2010) found that tangibles have a positive relationship and a significant impact on customer satisfaction. Similarly, Saraswathi (2011) found that tangibility followed by assurance was high in the banking environment as a result of satisfaction with modern looking equipment, appealing physical activities, appearance of staff and visual appeal in the bank. However, Kavitha (2012) found that whilst reliability, responsiveness, assurance and empathy correlated significantly with patients' satisfaction with the private hospital care, tangibles did not. In a public hospital environment, de Jager, du Plooy and Fami Ayadi (2010) found that in-patients' and out-patients' expectations was the highest for responsiveness of the hospital to manage complaints. In this regard, Brinkerhoff (2003) believes that when patients hold clinics accountable by exercising their exit option, this action creates incentives for responsiveness and service quality improvement.

Furthermore, in this study, all the sub-dimensions of the process of transformation significantly impact on the different sub-dimensions of service quality, although not optimally. The process before restructuring accounts for 19.3% of the variance in tangibles (physical facilities, equipment, and appearance of personnel). The perceived impact of restructuring on service delivery and performance accounts for 12.8% of the variance in responsiveness (willingness to assist customers and provide prompt services). The perception of restructuring in terms of outcomes, strategies and interventions implemented accounts for 18.5% of the variance in reliability (ability to perform required services dependably and accurately), 8.4% of the variance in assurance (knowledge and courtesy of employees and their ability to inspire trust and confidence) and 11.3% of the variance in empathy (caring and individual attention given to the customers). The implication is that restructuring efforts play a significant role in finding and implementing effective ways to satisfy the needs and desires of the patients (Kavitha, 2012). However, before any transformation takes place, it is imperative to evaluate the health care environment and identify problem areas as these can guide hospitals to render health care programs that are more patient-centered and that effectively channel change efforts (de Jager et al., 2010). This will prevent hospitals from making one of the most common service-improvement mistakes, that is, to spend money in ways that do not improve service (Berry, Parasuraman & Zeithaml, 1994).

RECOMMENDATIONS AND CONCLUSION

Excellent service delivery is the ideal, successful strategy as it attracts, retains and maintains current customers and marks the journey to organizational success. Whilst this may be the operating philosophy in a corporate environment, it is equivalently imperative in the public sector health care environment as patient satisfaction is an integral part of hospital management throughout the world.

The results of this study reflect that restructuring initiatives does improve service quality. Although optimal results were not achieved in this study, benefits were noted but much more could have been accomplished if it was based on a thorough evaluation of the hospital/clinic environment and patients' needs and expectations and, if goals were clearly set and effectively communicated. It is, therefore, recommended that change initiatives and restructuring processes should involve careful assessment and evaluation of the health care environment so as to identify critical problem areas such that goals can be effectively set and communicated to all stakeholders and strategies can be designed and aligned to minimize, if not eradicate, these problem areas. This will prevent the health care industry from spending valuable money in ways that do not improve service delivery and will ensure the design and implementation of strategies that result in satisfying the needs and desires of patients, which is the fundamental requirement of health care providers.

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