

“Measuring customer service in a private hospital”

AUTHORS

Christo Bisschoff, Hannes Clapton

ARTICLE INFO

Christo Bisschoff and Hannes Clapton (2014). Measuring customer service in a private hospital. *Problems and Perspectives in Management* , 12(4)

JOURNAL

"Problems and Perspectives in Management "



NUMBER OF REFERENCES

0



NUMBER OF FIGURES

0



NUMBER OF TABLES

0

© The author(s) 2017. This publication is an open access article.

Christo Bisschoff (South Africa), Hannes Clapton (South Africa)

Measuring customer service in a private hospital

Abstract

This study measures service quality management in a private hospital in Gauteng, South Africa. This was done by determining the current standard of service quality management, identifying the gap between the value and the satisfaction of the service quality dimensions, as well as the influence of gender on the perception of service quality. Following a literature study the empirical research employed a tailor-made 38-item questionnaire to collect data across seven sections, namely: premises/employees, doctors' medical services, diagnostics, nursing medical services, admissions, meals and rooms. A satisfactory response rate of 71% was obtained. The analysis included the demographic profile, reliability of the data (Cronbach alpha coefficients), exploratory factor analysis and descriptive statistics. The existence of the difference between gender experiences was also determined. The results showed that although satisfactory levels of service exist (in excess of 60%), management needs to focus on the factors highlighted during the study, with proper maintenance and improvement of the appearance of the facility and providing training to personnel to promote patient relationships. Furthermore, the recommendations include inter alia that the model is useable in other health institutions to evaluate service quality levels and to highlight possible shortfalls. This would provide management with knowledge to address possible shortfalls and improve the level of service quality across the private health sector.

Keywords: service quality, private healthcare, Servqual™, gender differences.

JEL Classification: M30.

Introduction

The South African national health system is significantly influenced by the private health care available in the country, even though access to these facilities is very limited to those other than beneficiaries of medical schemes. Private hospitals in South Africa are mainly classified as short stay hospitals (less than 30 days) with these hospitals containing an average of 200 beds (Matsebula & Willie, 2007, p. 159).

The National Treasury's Fiscal Review of 2011 (SA, 2011) indicated that the Gross Domestic Product (GDP) spent on private healthcare was R120.8 billion, which covered 16.2% (8.2 million people) of the population. Compared to the GDP spent on public healthcare of R122.4 billion to cover 84% (42 million people), this relates to great inequity in the two sectors (Department of National Treasury, 2011). The private healthcare sector is primarily subsidised by the 110 registered medical schemes in South Africa, with 3.4 million principal members and 7.8 million beneficiaries (Department of National Treasury, 2011). The majority of health expenses are attributed to private hospitals and specialists (Rhodes University, 2008). Furthermore, over the past 15 years a strong move of health professionals towards the private sector resulted (Day & Gray, 2008, p. 357). This trend continued, and according to George, Quinlin & Geardon (2009, p. 7) approximately 30% of medical practitioners, 60% of nurses and 15.5% of pharmacists are employed in the public health sector; yet they serve approximately 85% of South Africa's population. This is by no means unique to South Africa as

research by Jensen (2013) on Africa points out in the majority of African countries less than one doctor services 10 000 residents. South Africa has budgeted ZAR121 billion to accommodate the 2013 public health needs. The money is to be used primarily for upgrading of public hospitals, public healthcare facilities and nursing schools. There is also a fund to provide healthcare for HIV patients for the next 3 years in the amount of R968 million. The government hopes to provide free HIV treatment to 3 million South Africans by 2015. Public health has the following four main objectives (Medicare, 2013):

1. Improve life expectancy.
2. Reduce maternal and child mortality.
3. HIV treatment and increased AIDS awareness.
4. Improve the efficiency of public health.

The private hospitals, on the other hand, enter the health industry for both profit and social enterprises. It already plays and will continue to play a pivotal role in improving the health of the people of Sub-Saharan Africa (Paling, 2012). Since the turn of the century it controls as much as 70% of doctors and 84% of pharmacists in the private sector while its market consists of 32% of the population who are able to afford the private medical care (Rhodes University, 2008). The private hospitals are concentrated mainly in the major metropolitan areas with the majority of hospitals situated in Gauteng, Kwazulu-Natal and the Western Cape. The three major private groups consist of Netcare (2013), Medi-Clinic (2013) and Life Healthcare (2013).

1. Problem statement

The private sector provides healthcare to those individuals that are members of medical aids, pay out of pocket, work for companies that own and

fund healthcare facilities and government contract patients. The private healthcare sector of South Africa is one of the best in the world winning tenders in countries like the United Kingdom and owning facilities in Switzerland and India (Biermann, 2006, p. 4).

The provision of service quality is of great importance to the management of all service organizations and hospitals should particularly be interested to providing excellent clinical care, also focus on providing quality service to their patients (Biermann, 2006, p. 16). Furthermore, several studies (historic and recent) have indicated that a high level of service quality is related to an increase in profits, cost savings, and market share (Parasuraman et al., 1985, p. 41; Rust & Zahorik, 1993, p. 193; Buttle, 1996, p. 8; Rundle-Thiele & Russell-Bennett, 2010; Fullerton & McCullough, 2014). These studies show that it has, and remains, vitally important in the current competitive market that providers deliver patient satisfaction, quality service and effective medical treatment through the better understanding of service quality as defined by the customer and how to deliver this type of service.

It is of the utmost importance to understand the experience provided to the patient in order to increase the market share of the institution in the current economic climate. It has become more important than ever for companies to deliver a patient experience that differentiates it from competitors as the services can easily be copied, matched and duplicated. In order to create a memorable experience for patients, employees need to react to patients based on their unique needs and engage them (Reichheld, 2008).

However, within this uniqueness of needs lies the problem of the customer service measurement in hospitals. Each hospital's needs differ, and as such, there are no real generic measuring tool that suits all hospitals, and tailormade measuring tools are the only way to achieve these measurements. On the other hand, tailormade measuring tools for customer service are not validated. The validated models are the renowned Servqual, Kano and other models. Here, the problem resides within the general nature of these models, not being able to capture the unique service needs of a hospital. It is also interesting to note that few researchers take the effort to measure if there is a difference in service perceptions between men and women.

2. Contribution

The contribution of this article lies within the validation of a tailormade customer service model, yet to retain the validated concepts of general customer service models (such as the reliability,

tangibility, responsiveness, insurance and empathy). As such, this article presents a validated customer service model that is able to address the specific needs of the hospital environment. The secondary contribution of the article analyzes if differential perceptions exist between men and women when it comes to medical treatment and hospitalization.

3. Objectives

The primary objective of the study is to measure service quality at a private hospital.

The secondary objectives of the study are to:

- ◆ compile a service quality questionnaire to measure service levels at a private hospital;
- ◆ statistically measure the adequacy of the sample employed;
- ◆ validate the questionnaire;
- ◆ identify factors influencing the quality of service provided by a private hospital;
- ◆ measure the reliability of the factors;
- ◆ determine the importance of service quality to patients in a private hospital;
- ◆ determine the quality of service quality in a private hospital;
- ◆ determine the possible influence gender had on the perception of service quality in a private hospital.

4. Service quality

4.1. Defining service quality. Traditionally service quality was defined by Parasuraman, Zeithaml & Berry (1985) as:

“The global evaluation or attitude of overall excellence of services”.

Later, the researchers Sharp, Page and Dawes (2000) followed a new approach, and stated that:

“The conventional attitude-based approach relies on assumptions about the link between evaluations of service quality and subsequent behavior which are not supported by the substantive body of research findings about buyer behavior. The attitude-based approach also requires inferences to be made concerning what aspects of service provision determine the attitudes”.

A more modern definition of service quality by the more business orientated Business Directory (2014) states that service quality can be defined as:

“An assessment of how well a delivered service conforms to the client's expectations. Service business operators often assess the service quality provided to their customers in order to improve their service, to quickly identify problems, and to better assess client satisfaction.”

Despite a more modern approach to service quality, the traditional approach is still widely practised in commercial market research, as well as practised and taught in Universities. The approach has been trialled across a number of service categories and markets with promising results. Although this focus on the experience of the medical interaction, new research by Fullerton and McCullough (2014) indicated that the implication is that there needs to be a medical encounter in order for satisfaction to be impacted. In reality, most patients would rather avoid any medical interaction as this would be the most satisfactory experience. The results of Fullerton and McCullough's study (2014) clearly show that proactive consumers are more satisfied. They conclude that the healthcare environment has changed considerably over the past 20 years. In this regard, there is a multitude of actions that reflect patient's proactivity today that were not options just a few years ago.

4.2. Problems with service quality definitions.

Essentially, any medical service encounter is a negative experience. It is to restore lost health. It is associated with discomfort, pain, risk and in many cases also some degree of humiliation. In this regard patients' service encounters are significantly different from the most other service experiences which are regarded to be either a less negative experience (servicing your vehicle) or even a positive service experience (dining out, traveling or holiday accommodation). This poses the first problem of the medical service encounter – a difficulty to define quality or to compare the service quality to other industries. This leads to the next difficulty, namely to define service quality accurately. (The diverse views on service quality as discussed above serves as indicator of this difficulty). Wicks and Roethlein (2009, p. 82) stated that there is however no clear universal definition for quality. Finally, most competitive strategies have a strong financial focus where profits and gain rather than customer satisfaction are strived towards (Hays & Hill, 2006, p. 117).

4.3. Importance of service quality. The globalization of the marketplace is at the forefront of the drive to improve quality services provided to the customer through the increase in applications and the introduction of new programs like the Balridge Quality Award Program (NSIT, 2010) and the alterations to the ISO 9000 standards in 2001 (Kantha, 2002, p. 1). Deming (2000, pp. 10-13) who established many of the principles of quality in 1986, suggested that quality can increase demand and price flexibility. This will lead to an increase in profits as well as productivity with a reduction in waste and rework (Deming, 2000, pp. 10-13). This

is supported by Kaul (2005), who stated that in order to be recognized in a competitive market and retain the support of satisfied customers; service quality should be used as a tool. Choi et al. (2006, p. 925) found that service and e-service areas have benefited from the focus on the deliverance of quality service, while Rundle-Thiele & Russell-Bennett (2010) also stressed the importance of positive patient service encounters.

In essence, it would thus seem that although the most positive service experience in medical fraternity might be, as suggested by Fullerton and McCullough (2014), to be able to avoid it all; together. However, it is also true that no matter the magnitude of proactive patient actions taken, few patients are so lucky as to avoid medical procedures and the resulting patient experience all together. In that sense, traditional satisfaction and service quality remains an important managerial and competitive strategy, albeit it then be for the unlucky members of society who were unable to avoid medical intervention by means of any other proactive action.

4.4. The relationship between service quality and the private healthcare sector. Quality service in the hospital setting can be provided by several departments including nursing, customer support, food and beverages, laboratory services, pharmaceutical services, information technology, doctors and hospital management. These departments are equally important in providing quality service to the patient, consequently ensuring patient satisfaction (Pui-Mun, 2004, p. 96).

Reasons for improving the service quality in a healthcare institution include:

- ◆ Health providers believe that improving the service quality in the private healthcare sector to be the right thing to do (Direktör, 2007, p. 15).
- ◆ The involvement and satisfaction of the customer affect behavior (Direktör, 2007, p. 15).
- ◆ As the service quality of the provider improves, the expectations of the customer increases. Lee (2005, pp. 1-2) explained that as customers become more quality conscious, requirements for higher quality service increased.
- ◆ Shetty (1987, p. 46) found that not only can service quality lead to a competitive advantage, but also increase profitability and reduce costs.

Several studies have shown that there is an important connection between service quality and customer satisfaction (Johns et al., 2004, p. 82) customer retention (Reichheld, 1993, p. 65), loyalty (Boshoff & Gray, 2004, p. 27), costs (Reichheld & Sasser, 1990, p. 105), profitability (Rust & Zahorik,

1993, p. 193), service guarantees (Kandampully & Butler, 2001, p. 112) and financial performances (Buttle, 1996, p. 8). Additionally, these researchers have emphasised the significance of understanding, measuring and improving the quality of service provided by a private hospital. Parasuraman et al. (1988, p. 16) also found that the customers are more likely to recommend a company if they experienced quality service than when they did not. Accordingly, patients rely on their attitudes regarding facilities and health professionals to assess their experience (Yeşilada & Direktör, 2010, p. 963). Health professionals focus on providing their patients with the best possible treatment.

5. Influence of gender on the perceived service quality satisfaction

Previous studies have indicated that a difference in the perception of service quality between different genders exists due to factors such as gender role socialization, differences in data handling, personalities, interpreting ability and importance placed on essential or peripheral services (Mattila et al., 2003, p. 136). Marketing research has indicated that males tend to rate service quality higher than their female counterparts (Juwaheer, 2011, p. 164). Furthermore Mokhlis (2012, p. 103) found a significant difference between the empathy, tangibles and reliability dimensions of the Servqual™ model with males rating these dimensions more important than females. The different genders could experience the service delivered differently, resulting in the same patient treatment to differ in satisfaction. On the other hand, a gender sensitive approach could create problems if no differences exist between the different genders because this could be seen as preferential treatment of the opposite sex (Karatepe, 2011, p. 278). Thus, if differences between genders do exist, the necessary resource allocation should be made to ensure that all parties affected are treated in the correct manner and the relevant importance that the genders place on the different dimensions are adhered to. If not, managers should also take note that no gender sensitive strategy should be executed (Mokhlis, 2012, p. 103).

6. Research methodology

6.1. Questionnaire design. A questionnaire was constructed and employed criteria, experiences and research of previous studies as foundation concepts. The formulation, wording and phrases were modified to be applicable to the current facility and hospital environment. The questionnaire consists of different sections that encompassed the services delivered by the hospital and included service quality from admission to the rooms, and various other service encounters (Farid, 2008, pp. 55-56). The sections

could influence the importance and satisfaction of the patient visiting the facility and has a significant relationship with the service quality provided by the hospital. The following sections, according to Farid (2008, pp. 55-56), played an important role in the satisfaction the patients experienced with level of service quality the patients experienced, namely: Premises/Employees, Doctors' medical service, Diagnostics, Nursing medical services, Admissions, Meals, and Rooms. This section of the questionnaire consisted of 38 detailed statements divided according to seven subsections that measured elements as described above. In addition, these 38 questions were also categorised into the five service dimensions of the proven Servqual™ model. The questionnaire collected data on both the satisfaction levels and the importance of the service criteria on a 4-point Likert scale.

Additionally, the questionnaire also contained a section where demographic variables could be recorded.

6.2. The sample and collection of the data. The study population consisted of the patients' visiting a specific private hospital over a two-week period. It included patients in the surgical, medical and maternity wards. The study made use of a convenience sampling. The sample consisted of conveniently selected patients from the medical facility throughout the two week period. Only patients who were able to complete the questionnaire (not limited due to some medical procedures and medication) were selected to become part of the study.

The data was collected by physically distributing the questionnaires to patients at the point of discharge with a request to complete the questionnaire there and then. This provided the respondents with the best possible ability to evaluate the whole service provided to them during their stay in the hospital, whilst the researchers were able to collect the completed questionnaires without. Personnel of the hospital were trained to gather the data, where after they assisted in the distribution and collection of the questionnaires. Where respondents had difficulty in answering the questions the personnel explained the relevant terminology to the respondents. A convenience sample of 75 respondents was drawn, and a total of 53 completed questionnaires were received back, signifying a favorable response rate of 71%. The sample adequacy was statistically determined by calculating the Kaiser, Meyer and Olkin test for sample adequacy (KMO). Bartlett's tests were also calculated. All the values were below the required 0.005 margin showing that the data was suitable for factor analysis.

7. Results

7.1. Demographic profile. The demographic profile of patients is illustrated in Table 1.

Table 1. Demographic profile of the respondents
(N = 53)

| Item | Category | Frequency | Percentage |
|----------------------------|----------------|-----------|------------|
| Gender | Male | 19 | 35.85 |
| | Female | 34 | 64.15 |
| Home language | English | 7 | 13.73 |
| | isiZulu | 7 | 13.73 |
| | Afrikaans | 27 | 52.94 |
| | Northern Sotho | 4 | 7.84 |
| | siSewati | 5 | 1.96 |
| | Other | 5 | 9.80 |
| Race | White | 28 | 52.83 |
| | Black | 19 | 35.85 |
| | Indian | 6 | 11.32 |
| Reason for visit | Surgical | 19 | 36.54 |
| | Medical | 31 | 59.62 |
| | Maternity | 2 | 3.85 |
| Duration of stay | 0-1 | 10 | 18.87 |
| | 2-3 | 18 | 33.96 |
| | 4-5 | 20 | 37.74 |
| | 6- | 5 | 9.43 |
| Highest level of education | Matric | 23 | 43.40 |
| | Diploma | 13 | 24.53 |
| | Degree | 5 | 9.43 |
| | Masters | 5 | 9.43 |
| | Doctorate | 7 | 13.21 |

Female respondents comprised the largest part of the study with 34 females completing the questionnaire compared to 19 male respondents. The average age of the respondents was 43 years of age and ranged from 23 to 77 years. Furthermore, the sample comprised of 52% White, 35% Black and 11% Indian respondents. This distribution represents the population of the specific geographic area of the study well, with the only exception being the Indian population, which only represents 3.81% of the area's population (Census, 2011).

The sample consisted of 59% of patients' visiting the medical wards with the surgical and maternity ward contributing 36% and 4% respectively. Some 37% of the respondents stayed in the hospital for 4-5 days followed by 33% for 2-3 days and 18% for 0-1 days, which is in keeping with the fact that the duration of stay of medical patients are longer than that of surgical patients. Surgical patients make use of the facility for minor surgeries including dentistry, biopsy and tonsillectomies, whereas medical patients are admitted to treat non-elective conditions where a timeline for treatment duration is not set.

8. Service dimensions

The dimensions of the Servqual™ model (tangibles, reliability, responsiveness, assurance, empathy) were represented by the following breakdown of the questions in the questionnaire according to literature and previous studies in the service quality field (Van Heerden, 2010; Farid, 2008; Bisschoff & Kade, 2010).

Table 2. Breakdown of questions into the Servqual™ dimensions

| Servqual™ dimensions | Questions in the questionnaire |
|----------------------|--------------------------------------|
| Tangibles | Q1, Q2, Q3, Q4, Q21, Q35, Q36 |
| Reliability | Q5, Q17, Q19, Q20, Q23 |
| Responsiveness | Q9, Q10, Q14, Q26, Q29, Q30, Q31 |
| Assurance | Q6, Q7, Q15, Q16, Q18, Q22, Q24, Q37 |
| Empathy | Q8, Q11, Q12, Q13, Q27, Q28, Q34 |
| Omitted questions* | Q25, Q32, Q33 and Q38 |

Note: These questions were omitted because no clear support for a specific Servqual™ dimension could be found in the literature to support their inclusion.

The criteria pertaining to each dimension were subjected to exploratory factor analysis (Oblimin oblique rotation) to ensure the validity and belongingness of the criterion to the dimension.

8.1. Dimension 1: tangibles. Two factors were retained by the MINEIGEN criterion. Both factors have Eigen values greater than one. The two factors cumulatively explain 59.75% of the variation, with factor one explaining 42% of the variation. Factor loadings greater than 0.35 were considered as significant and all values loaded sufficiently to such an extent that no items were deleted (Nunnally, 1978, p. 132). The sample adequacy was determined by calculating the KMO value (preferably exceeding 0.70). The KMO value for tangibles is 0.72. The factor matrix of tangibles is shown in Table 3.

Table 3. Factor analysis on tangibles

| Question | Factor 1 | Factor 2 |
|----------|----------|----------|
| Q1 | 0.84 | |
| Q2 | 0.79 | |
| Q3 | 0.76 | |
| Q4 | 0.59 | |
| Q35 | | 0.83 |
| Q21 | | 0.82 |
| Q36 | | 0.44 |

The analysis shows that the dimension of tangibility actually consists of two subfactors and is labelled as:

- ◆ Tangibility 1: tangible aspects (materials, equipment, employees and facility).
- ◆ Tangibles 2: condition of tangibles.

8.2. Dimension 2: reliability. The analysis of the data pertaining to reliability identified one factor only. The factor explains a favorable 65% of the variance. The sample is also adequate as the KMO value is well above the required 0.70 at 0.79. The factor loadings are shown in the Table 4 below.

Table 4. Factor analysis on reliability

| Question | Factor 1 |
|----------|----------|
| Q19 | 0.92 |
| Q17 | 0.91 |
| Q20 | 0.88 |
| Q23 | 0.83 |
| Q5 | 0.38 |

The factor is labelled reliability, and pertains to issues such as: to be able to perform the promised service accurately and dependently.

8.3. Dimension 3: responsiveness. The exploratory factor analysis identified two factors with Eigen values are greater than one. The two factors explain a very favorable 71.45% of the variance cumulatively, explaining 55.31% (Factor 1) and 16.14% (Factor 2), respectively. The KMO value is favorable at 0.77 signifying an adequate sample. The high factor loadings are shown in the rotated factor matrix in table below.

Table 5. Factor analysis on responsiveness

| Question | Factor 1 | Factor 2 |
|----------|----------|----------|
| Q10 | 0.83 | |
| Q29 | 0.81 | |
| Q14 | 0.80 | |
| Q9 | 0.76 | |
| Q26 | | 0.94 |
| Q31 | | 0.81 |
| Q30 | | 0.79 |

Four of the seven questions pertaining to responsiveness loaded on Factor 1 with the remainder loading onto Factor 2. The two sub-factors are labelled as:

- ◆ Responsiveness 1: Service will be performed (not too busy to help).
- ◆ Responsiveness 2: Service performed promptly.

8.4. Dimension 4: assurance. Two factors were retained by the MINEIGEN criterion because their Eigen values were greater than one. These factors cumulatively explain 62.92% of the variance, while Factor 1 explains 46.20% thereof. The KMO value is also favorable at 0.75. The factor loadings are shown in Table 6 below.

Table 6. Factor analysis on assurance

| Question | Factor 1 | Factor 2 |
|----------|----------|----------|
| Q18 | 0.81 | |

| | | |
|-----|------|------|
| Q24 | 0.79 | |
| Q16 | 0.72 | |
| Q15 | 0.63 | |
| Q37 | 0.58 | |
| Q7 | | 0.92 |
| Q6 | | 0.86 |
| Q22 | | 0.75 |

The dimension of assurance actually consists of two subfactors. They are labelled as:

- ◆ Assurance 1: confidence.
- ◆ Assurance 2: knowledge.

8.5. Dimension 5: empathy. Only one factor was identified. The factor explains a favorable 57% of the variance. The sample is also adequate as the KMO value is well above the required 0.70 at 0.87. The high factor loadings are shown in table below.

Table 7. Factor analysis on empathy

| Question | Factor 1 |
|----------|----------|
| Q12 | 0.83 |
| Q8 | 0.83 |
| Q28 | 0.79 |
| Q11 | 0.75 |
| Q34 | 0.74 |
| Q27 | 0.69 |
| Q13 | 0.62 |

All the questions pertaining to empathy loaded onto one factor, thus for this study the definition of empathy is retained as: provides customers with caring, individualized attention.

8.6. Reliability coefficients of the identified factors. Reliability refers to how the study should be measured, thus how consistent the variables are in relation to what it is supposed to measure (Welman et al., 2005, p. 145). Cronbach Alpha determines this consistency and is the most widely used technique to measure reliability (Cronbach, 1951, p. 297). The Cronbach Alpha for the data collected was determined to ensure that the responses of the respondents were reliable and that if the study was repeated the respondents would answer the questions in the same manner. As stated earlier coefficients of 0.70 or higher are regarded to be satisfactory (Field, 2009, p. 664), but due to attitudinal and social factors, a Chronbach Alpha of ≥ 0.58 can be acknowledged as adequate. Such data can be used for analytical scrutiny (Kade, 2009, p. 26).

Table 8 illustrates the Chronbach Alpha coefficients of the factors as set out earlier and includes: Tangibles 1, Tangibles 2, Reliability, Responsive-

ness 1, Responsiveness 2, Assurance 1, Assurance 2 and Empathy.

Table 8. Chronbach Alpha coefficients of the identified factors

| | N | Cronbach Alpha |
|------------------|----|----------------|
| Tangibles 1 | 53 | 0.76 |
| Tangibles 2 | 53 | 0.61 |
| Reliability | 51 | 0.84 |
| Responsiveness 1 | 53 | 0.84 |
| Responsiveness 2 | 53 | 0.82 |
| Assurance 1 | 52 | 0.79 |

| | | |
|-------------|----|------|
| Assurance 2 | 53 | 0.79 |
| Empathy | 53 | 0.86 |

All the Cronbach Alpha coefficients of the different factors comply with the minimum acceptable point of 0.70 with the exception of Tangibles 2 ($\alpha = 0.61$). However, it exceeds the secondary lower margin of 0.58 meaning that the factor could still be regarded as reliable (albeit on a lower level of reliability).

8.7. Mean value analysis. The mean values of both Importance and Satisfaction of the different factors and subfactors are shown in Figure 1 below.

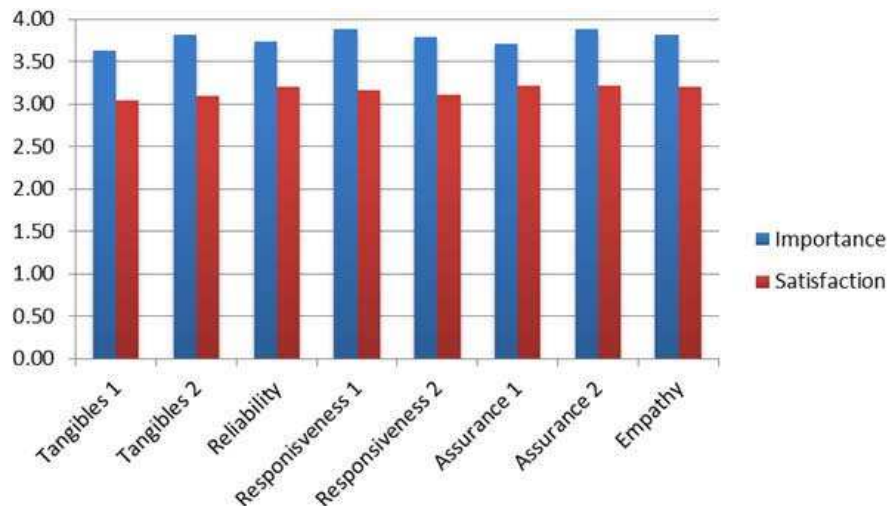


Fig. 1. Mean values of importance and satisfaction of the different factors

From the figure it is clear that satisfaction levels are between 3 and 3.5 on the 5-point scale, indicating satisfactory but not excellent service levels (Bisschoff & Lotriet, 2008). This service levels should be improved because the respondents rated the importance of the factor to be high (between 3.0 and 3.5 on the 4-point scale, while the importance all exceeded 3.5 on the scale). The effect size of Ellis and Steyn (2003, pp. 52-53) was employed to test practical significance between the two sets of variables. The analysis showed that all the differences are largely practically significant (exceeding 0.8).

8.8. Influence of gender on perceived service quality. The study analyzed whether gender could have an effect on the satisfaction levels patients experienced during their evaluation of service quality. Demographic data was used to differentiate between the different genders as indicated on the questionnaire (males 35.85% versus females 64.13%). The level of satisfaction the patients perceived during their stay at the hospital was divided according to their gender and the satisfaction levels according to the different factors.

Statistical analysis was performed on the data to identify possible differences between gender and

satisfaction levels of the different factors. The effect size was employed to identify any practical significant differences between the males and female respondents (Ellis & Steyn, 2003, p. 52). The results of the analysis indicated that no large practical significant difference between satisfaction levels of men and women on all service quality factors existed (where the effect size > 0.8). This is contradictory with findings of research by Mokhils (2012, p. 110) that stated that males rated empathy, reliability and tangibles higher than their female counterparts. However, this specific study was performed in the public administration service industry, and not in the medical fraternity.

Conclusions

The factors identified through the analysis of the data had a direct descriptive effect on the perceived service quality that the hospital provided. The fact that Assurance 2 had the highest level of perceived satisfaction followed by Assurance 1 provided the hospital with the current points of strengths that can be focused on to ensure continued support from patients. Gaur et al. (2011, p. 67) stated that the satisfaction had a definite influence on the intention of patients to stay loyal to the institution. Thus, the hospital was able to instil confidence with the

services provided as well as provide a service that is consistently courteous with a high level of knowledge.

Patients rated Responsiveness 1 as the factor with the highest importance. Thus patients were expecting that the service will be provided and that the hospital will not be too busy to help as the most important factor pertaining to service quality. The hospital should therefore focus on its ability to provide the required services to the patients as well as assist patients with all their requirements within a reasonable time.

The main discrepancy between the factors that patients rated the most important and their satisfaction levels were with Tangibles 2 and Responsiveness 1. Thus the condition of tangibles within the facility was not up to standard and need to be addressed to improve the perceived satisfaction of patients with service quality. Furthermore the fact that patients rated Responsiveness 1 as the most important and that the discrepancy between importance and satisfaction was the second highest is an indication that the hospital must make this their primary focus area for improving service quality at the facility. The results show that the patients were unsatisfied with the way that the hospital handled problems. Thus, the hospital was not aware of the problems of the patients and not able to provide the best possible solution to the identified problems. The hospital personnel could also convey their respect to the patients via their enthusiasm to provide help and support.

The findings of this study are supported by findings of Nekoei-Moghadam and Amiresmaili (2011, p. 63) who identified tangibles and responsiveness as contributing to the main discrepancy between the expectation and perception of the patients. This was followed by Reliability, Assurance and Empathy.

The factors with the smallest difference between importance and satisfaction included Assurance 1 and Reliability. This is thus an indication that the hospital is currently able to instil confidence, are consistently courteous and able to perform the promised service accurately and dependently. These benefits could be used to the hospitals advantage as a competitive advantage even though there is still room for improvement. The hospital could also transfer its focus to other factors that are not up to standard at the time.

The analysis of the influences of gender on the perception of service quality at the hospital indicated that no such difference existed and that both male and female respondents evaluated the services in a similar manner. Thus, no action is

required in this regard from management and no unnecessary resource allocation should be made. Focus should rather be diverted elsewhere.

Managerial implications

Organizations will only be able to sustain and maintain their position if they are able to enhance quality in their end product, and this can only be done if they understand their shortcomings.

The private institution needs to focus on the biggest gaps identified and employ an improvement strategy to rectify the quality flaws (Brown et al., 2013, pp. 442-443).

The study generated various implications for the effective management of service quality and highlighted areas where improvement is required. The fact that the infrastructure is outdated greatly hindered the perception of service quality for the patient as most patients expected modern looking facilities. Regular maintenance of the facility is required to maintain the appearance of the facility and the layout and furniture need to be updated to ensure these items represent a modern looking facility, which are comparable similar facilities. Office space could also be improved by adding décor that is visually appealing (Yousapronpaiboon & Johnson, 2013, p. 350). This is supported by findings of Fottler et al. (2009, p. 43) that the physical look of the facility helps improve the mood and morale of patients.

The responsiveness of the hospital can be improved through the provision of detailed and truthful information about service condition expectations, and by providing fast and well-organized services to the patients visiting the hospital. Personnel need to focus on the needs of the patients and act on these needs in a prompt and keen manner.

The contact of the patient with the service quality of the facility also extends to other personnel, and includes receptionists, nurses, laboratory personnel and technicians. The patients expected well-trained personnel that were knowledgeable and efficient. A further dimension to this is that personnel treat patients in a friendly and polite manner. Employees also need to improve the relationship between patients and personnel through improving their own communication skills, improving information sharing between the different parties.

Thus, it is of the utmost importance for management to provide the necessary training to further the performance of its employees in these fields. Employees also need to be constantly trained through training programs and patient relationship management courses to improve the handling of

patients and their problems. Personnel also need to provide the patient with empathy during their stay, as it creates a feeling of understanding in tough times, and could improve the outcome of a patient's treatment (Hamid et al., 2008, p. 119). The empathy factor can be further enhanced by providing the patients with personal attention as well as understanding the needs of the patients. Furthermore, a follow-up procedure on patients could also enhance the overall feeling of empathy. Arasli et al. (2008, p. 8) proposed that the feeling of empathy could be enhanced through improving the relationship between employees and the patients, conducting responsibilities professionally as well as looking after the patients best interests.

Hospitals need to constantly analyze the level of satisfaction their patients experience with the service quality and implement corrective actions to address concerns. This will improve patient's satisfaction as well as the intention of the patient to refer the institution to others. Hospitals should also pay more attention to the overall service quality

provided by the institution. This can only be achieved if the hospital is aware of the possible shortcomings in the current level of service quality offering. If these concerns were addressed adequately it will improve the intention of patients to return to the hospital.

The focus on a strategy to improve the service quality of the institution will add value to the current relationship of the hospital with its patients as well as prospective future clients (Bala, 2011, p. 182).

- ◆ The study provided a platform for marketers to base their efforts on.
- ◆ The hospital can use the data collected to form new strategies to improve the current level of service quality, thus increasing the return of patients to the facility and increase revenues collected. These strategies could include the effective allocations of funds in an effort to improve service quality and patient retention.
- ◆ The study could also be used as a base for future studies to determine whether current strategies were effective in improving service quality.

References

1. Abuosi, A.A. & Atinga, R.A. (2013). Service quality in healthcare institutions: establishing the gaps for policy action, *International Journal of Healthcare Quality Assurance*, 26 (5), pp. 481-492.
2. Anderson, E.W., Fornell, C. & Mazvancheryl, S. (2004). Customer satisfaction and shareholder value, *Marketing*, 68 (4), pp. 172-185.
3. Arasli, H., Ekiz, E.H. & Katircioglu, S.T. (2008). Gearing service quality into public and private hospitals in small islands, *International Journal of Health Care Quality Assurance*, 21 (11), pp. 8-23.
4. Bala, N. (2011). Measuring life insurance service quality: an empirical assessment of SERVQUAL™ instrument, *International Business Research*, 4 (4), pp. 176-190.
5. Berry, L.L., Parasuraman, A. & Zeithaml, V.A. (1988). The service quality puzzle, *Business horizons*, 31 (5), pp. 35-43.
6. Biermann, J. (2006). *South Africa's health care under threat*, Johannesburg, Free Market Foundation.
7. Bisschoff, C.A. & Kade, A. (2010). *Validation of a customer service measuring instrument for the ophthalmology industry*. (Paper presented at the South African Institute of Management Scientists, Mpekwani, East London, 24-26 September.)
8. Bisschoff, C.A. & Lotriet, R.A. (2008). *Service quality of the PUK Rugby Institute*, Potchefstroom: North-West University.
9. Brown, S., Bessant, J. & Lamming, R. (2013). *Strategic operations management*, 3rd ed., New York: Routledge.
10. Brown, S.W. & Swartz, T.A. (1989). A gap analysis of professional service quality, *Journal of Marketing*, 53 (2), pp. 92-98.
11. Business Directory (2014). Defining service quality. Available at: <http://www.businessdictionary.com/definition/service-quality.html#ixzz2vTssROTp>, Date of access: 10 March 2014.
12. Buttle, F. (1996). SERVQUAL™: review, critique, research agenda, *European Journal of Marketing*, 30 (1), pp. 8-32.
13. Choi, D.H., Kim, C.M., Kim, S. & Kim, S.H. (2006). Customer loyalty and disloyalty in internet retail stores: its antecedents and its effect on customer price sensitivity, *International Journal of Management*, 23 (4), pp. 925-942.
14. Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests, *Psychometrika*, 16 (3), pp. 297-334.
15. Day, C. & Gray, A. (2008). *Health and related indicators*, In Barron, P. & Roma-Reardon, J., eds., South African Health Review, Durban: Health Systems Trust, p. 239-396.
16. Deming, W. (1986). *Out of crisis*, Boston: MIT.
17. Direktör, E. (2007). *Perceived service quality and patient satisfaction in TRNC: comparison of public and private hospitals.*, (Dissertation – MBA), Nicosia: Near East University.
18. Ellis, S.M. & Steyn, H.S. (2003). Practical significance (effect sizes) versus or in combination with statistical significance (*p*-values), *Management Dynamics*, 12 (4), pp. 51-53.

19. Farid, I.M.F. (2008). *Development of a model for healthcare service quality: an application to the private healthcare sector in Egypt*, (Thesis – PhD), Maastricht: Maastricht School of Management.
20. Field, A. (2009). *Discovering statistics using SPSS*, 3rd ed., London: Sage.
21. Field, J., Heim, G. & Sinha, K. (2004). Managing quality in the e-service system: development and application of a process model, *Production and Operations Management*, 13 (4), pp. 291-307.
22. Fottler, M.D., Ford, R.C. & Heaton, C.P. (2009). *Achieving service excellence: strategies for health*, Chicago: Health Administration.
23. Fullerton, S. & McCullough, T. (2014). Patient proactivity: Behaviors, attitudes, and its relationship with satisfaction with the American Health Care Delivery System, *Health Marketing Quarterly*, 31 (1), pp. 78-96.
24. Furse, D.H., Burcham, M.R., Rose, R.L. & Oliver, R.W. (1994). Leveraging the value of customer satisfaction information, *Journal of Healthcare Marketing*, 53 (2), pp. 48-52.
25. Gaur, S.S., Xu, Y., Quazi, A. & Nandi, S. (2011). Relational impact of service providers' interaction behavior in health care, *Managing Service Quality*, 21 (1), pp. 67-87.
26. George, G., Quinlin, R. & Geardon, G. (2009). *Human resources for health: a needs and gaps analysis of HRH in South Africa*, Durban, University of KwaZulu-Natal.
27. Gurau, C. (2003). Tailoring e-service quality through CRM, *Managing Service Quality*, 13 (6), pp. 520-531.
28. Hamid, A.B., Hashim, N.H. & Shamsuddin, A.S. (Eds.) (2008). *Customer satisfaction and service quality: challenges and issues in Malaysia*, Malaysia, Univision.
29. Jensen, N. (2013). *The Health Worker Crisis: an analysis of the issues and main international responses*, London, Health Poverty Action.
30. Johns, N., Avci, T. & Karatepe, O.M. (2004). Measuring service quality in travel agents: evidence from Northern Cyprus, *Service Industries Journal*, 24 (3), pp. 82-100.
31. Juwaheer, T.D. (2011). Gender bias in hotel guests' perceptions of service quality: an empirical investigation of hotels in Mauritius, *e-Review of tourism research*, 9 (5), pp. 164-189.
32. Kade, A. (2009). *Customer service of an ophthalmology practice*, (Dissertation – MBA.), Potchefstroom, North-West University.
33. Kandampully, J. & Butler, L. (2001). Service guarantees: a strategic mechanism to minimize customers' perceived risk in service organizations, *Managing Service Quality*, 11 (1), pp. 112-121.
34. Karatepe, O.M. (2011). Service quality, customer satisfaction and loyalty: the moderating role of gender, *Journal of Business Economics & Management*, 12 (2), pp. 278-300.
35. Kaul, S. (2005). *Measuring retail service quality. Measuring retail service quality: examining applicability of international research perspectives in India*, Ahmadabad: Indian Institute of Management.
36. Lee, J. (2005). Measuring service quality in a medical setting in a developing country, *Services Marketing Quarterly*, 27 (2), pp. 1-14.
37. Life Healthcare (2013). Life Healthcare Home page, www.lifehealthcare.co.za, Date of access: 10 March 2014.
38. Matsebula, T. & Willie, M. (2007). *Private hospitals*, (In Harrison, S., Bhana, R., Ntuli, A., Roma-Rearden, J., Day, J. & Barron, P., (Eds.), *South African health review 2007*, Durban: Health Systems Trust, pp. 159-174.
39. Mattila, A.S., Gradey, A.A. & Fisk, G.M. (2003). The interplay of gender and affective tone in service encounter satisfaction, *Journal of Service Research*, 6 (2), pp. 136-143.
40. Medicare (2013). Private and public healthcare providers can learn from each other. Available at: <http://www.theguardian.com/healthcare-network/2013/jun/14/private-public-healthcare-providers-bmi-healthcare>
41. Medi-Clinic (2013). Mediclinic Home page. <https://www.mediclinic.co.za>, Date of access: 10 March 2014.
42. Mokhlis, S. (2012). The influence of service quality on satisfaction: a gender comparison, *Public Administration Research*, 1 (1), pp. 103-112.
43. National Institute of Standards and Technology (NSIT). (2010). Baldrige performance excellence program, <http://www.nist.gov/baldrige>, Date of access: 1 June 2013.
44. 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), pp. 57-66.
45. Netcare (2013). Netcare Home page. Available at: <https://www.netcare.co.za/> Date of access: 10 March 2014.
46. Nunnally, J.C. (1978). *Psychometric theory*, New York: McGraw-Hill.
47. Øvretveit, J. (2000). Total quality management in European healthcare, *International Journal of Health Care Quality Assurance*, 13 (2), pp. 74-79.
48. Paling, S. (2012). The challenge of comparing private and public healthcare. Available at: <http://www.hanshep.org/news-and-events/blog/the-challenge-of-comparing-private-and-public-healthcare>, Date of access: 14 Feb. 2014.
49. Parasuraman, A., Zeithaml, V.A. & Berry, L.L. (1985). A conceptual model of service quality and its implications for future research, *Journal of Marketing*, 49 (4), pp. 41-50.
50. Pui-Mun, L. (2004). IT-enhanced service quality in the healthcare industry, *International Journal of the Computer, the Internet and Management*, 12 (3), pp. 96-103.
51. Reichheld, F.F. (2008). The customer experience: people make the difference. Available at: www.forum.com/_assets/download/1ef9cf47-1886-4c47-aa26-0598f838a7e5.pdf, Date of access: 13 August 2013.

52. Reichheld, F.F. & Sasser, W. (1990). Zero defections: quality comes to service, *Harvard Business Review*, 68 (5), pp. 105-111.

53. Rhodes University (2008). Policy brief: The private health sector: Learning from South African experience. Available at: <http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CDcQFjAA&url=http%3A%2F%2Fwww.ru.ac.za%2Fmedia%2Frhodesuniversity%2Fcontent%2Fiser%2Fdocuments%2Fdocs%2FThe%2520private%2520health%2520sector..doc&ei=IHBIUor3NcPPhAffpIEg&usg=AFQjCNFPaQ33JgOBzSpTT0ZIDt0qA7-YEW&sig2=92t5qnG64IsfGzZezOsmCA>, Date of access: 20 July 2013.

54. Rundle-Thiele, S. & Russell-Bennett, R. (2010). Patient influences on satisfaction and loyalty for GP services, *Health Marketing Quarterly*, 27 (2), pp. 195-214.

55. Sharp, B., Page, N. & Dawes, J. (2000). A New Approach to Customer Satisfaction, Service Quality and Relationship Quality Research. Paper presented at ANZMAC Conference, Gold Coast. (November 28-December 1).

56. South Africa (2003). *National Health Act No. 61 of 2003*, Pretoria: Government Printers.

57. South Africa. Department of National Treasury (2011). *Intergovernmental fiscal review 2011*. Available at: <http://www.trea-sury.gov.za/publications/igfr/2011/default.aspx>, Date of access: 1 August 2013.

58. Van Heerden, J. (2010). *Customer service at a private hospital in the North-West province*, (Dissertation – MBA). Potchefstroom, North-West University.

59. Welman, C., Kruger, F. & Mitchell, B. (2005). *Research methodology*, 3rd ed., Cape Town, Oxford University.

60. Wicks, A.M. & Roethlein, C.J. (2009). A satisfaction-based definition of quality, *Journal of Business and Economic Studies*, 15 (1), pp. 82-97.

61. Yeşilada, F. & Direktör, E. (2010). Health care service quality: a comparison of public and private hospitals, *African Journal of Business Management*, 4 (6), pp. 962-971.

62. Yousapronpaiboon, K. & Johnson, W.C. (2013). Measuring hospital out-patient service quality in Thailand, *Leadership in Health Services*, 26 (4), pp. 38-355.

63. Zeithaml, V.A., Parasuraman, A. & Berry, L.L. (1990). *Delivering quality service: balancing customer perceptions and expectations*, New York: Free Press.

Appendix: measuring criteria

Table 1A. Perception/satisfaction

Note: regarding the variables listed below in the middle column, how do you rate the **importance** of each variable for hospital service quality and to which extent was this to your **satisfaction**. Thus, by marking a 4, will indicate a rating of excellent/strongly agree and a 1 will indicate a rating of poor/disagree. If you feel that the service provided was either between excellent and poor mark 2-4.









| No | | Importance | | | | Question | Satisfaction | | | |
|----|--------------------------|---|---|---|---|--|---|---|---|---|
| | |  | | |  | |  | | |  |
| 1 | Premises/employees | 1 | 2 | 3 | 4 | The hospital has state of the art technological equipment | 1 | 2 | 3 | 4 |
| 2 | | 1 | 2 | 3 | 4 | The buildings, landscape and physical lay-out is visually appealing | 1 | 2 | 3 | 4 |
| 3 | | 1 | 2 | 3 | 4 | The employees of the hospital are professionally dressed | 1 | 2 | 3 | 4 |
| 4 | | 1 | 2 | 3 | 4 | The booklets, pamphlets and statements contain all necessary information and is in keeping with the type of service that is provided | 1 | 2 | 3 | 4 |
| 5 | Doctors' medical service | 1 | 2 | 3 | 4 | Doctors are punctual at all times | 1 | 2 | 3 | 4 |
| 6 | | 1 | 2 | 3 | 4 | The care provided by the doctors creates a safe environment | 1 | 2 | 3 | 4 |
| 7 | | 1 | 2 | 3 | 4 | Doctors in the hospital are very knowledgeable and able to answer questions satisfactory | 1 | 2 | 3 | 4 |
| 8 | | 1 | 2 | 3 | 4 | A skilled doctor is available at all times during my hospital stay and is aware of my specific case | 1 | 2 | 3 | 4 |
| 9 | | 1 | 2 | 3 | 4 | Doctors in the hospital listen to what I have to say | 1 | 2 | 3 | 4 |
| 10 | | 1 | 2 | 3 | 4 | Doctors explain carefully what is required of me | 1 | 2 | 3 | 4 |
| 11 | | 1 | 2 | 3 | 4 | Enough time is spent on me as a patient by the doctor | 1 | 2 | 3 | 4 |
| 12 | | 1 | 2 | 3 | 4 | I am examined very carefully by doctors before my condition is determined | 1 | 2 | 3 | 4 |
| 13 | | 1 | 2 | 3 | 4 | Doctors treat me with respect | 1 | 2 | 3 | 4 |
| 14 | | 1 | 2 | 3 | 4 | All decisions regarding my medical care are discussed with me by my doctor | 1 | 2 | 3 | 4 |
| 15 | | 1 | 2 | 3 | 4 | The excellent reputation of the doctors proceeds them | 1 | 2 | 3 | 4 |
| 16 | | 1 | 2 | 3 | 4 | Doctors in the hospital are accredited with the highest degrees | 1 | 2 | 3 | 4 |

Table 1A (cont.). Perception/satisfaction

| No | | Importance | | | | Question | Satisfaction | | | |
|----|-------------------------|---|---|---|---|--|---|---|---|---|
| | |  | | |  | |  | | |  |
| 17 | Diagnostics | 1 | 2 | 3 | 4 | Unnecessary diagnostical medical procedures are never ordered by the doctors in the hospital | 1 | 2 | 3 | 4 |
| 18 | | 1 | 2 | 3 | 4 | The laboratory and x-ray technicians in the hospital are highly skilled | 1 | 2 | 3 | 4 |
| 19 | | 1 | 2 | 3 | 4 | Laboratory tests as well as x-rays are done correctly the first time | 1 | 2 | 3 | 4 |
| 20 | | 1 | 2 | 3 | 4 | Lab tests and x-rays are delivered punctually | 1 | 2 | 3 | 4 |
| 21 | Nursing medical service | 1 | 2 | 3 | 4 | The personal hygiene of nursing personnel are exceptional | 1 | 2 | 3 | 4 |
| 22 | | 1 | 2 | 3 | 4 | The service provided by nursing personnel are skilful and knowledgeable at all times | 1 | 2 | 3 | 4 |
| 23 | | 1 | 2 | 3 | 4 | Services (tests, procedures and medication) provided by nursing personnel are always on time | 1 | 2 | 3 | 4 |
| 24 | | 1 | 2 | 3 | 4 | Nurses are empathetic | 1 | 2 | 3 | 4 |
| 25 | Nursing medical service | 1 | 2 | 3 | 4 | Nurses communicate clearly in an acceptable language | 1 | 2 | 3 | 4 |
| 26 | | 1 | 2 | 3 | 4 | Response of nursing personnel is done in an acceptable time-span | 1 | 2 | 3 | 4 |
| 27 | | 1 | 2 | 3 | 4 | I am provided with personal attention by the nurses in the hospital | 1 | 2 | 3 | 4 |
| 28 | | 1 | 2 | 3 | 4 | My specific needs are understood by nursing personnel | 1 | 2 | 3 | 4 |
| 29 | Admissions | 1 | 2 | 3 | 4 | The admission process is quick and efficient | 1 | 2 | 3 | 4 |
| 30 | | 1 | 2 | 3 | 4 | Directions and schedules are provided by admission personnel | 1 | 2 | 3 | 4 |
| 31 | | 1 | 2 | 3 | 4 | Admission personnel are friendly and helpful | 1 | 2 | 3 | 4 |
| 32 | Meals | 1 | 2 | 3 | 4 | Meals are served at correct temperatures | 1 | 2 | 3 | 4 |
| 33 | | 1 | 2 | 3 | 4 | Meals are of a very high quality | 1 | 2 | 3 | 4 |
| 34 | | 1 | 2 | 3 | 4 | Meals are prepared according to each individual's specific needs | 1 | 2 | 3 | 4 |
| 35 | Rooms | 1 | 2 | 3 | 4 | Rooms are attractive | 1 | 2 | 3 | 4 |
| 36 | | 1 | 2 | 3 | 4 | Cleanliness of rooms and bathrooms are maintained | 1 | 2 | 3 | 4 |
| 37 | | 1 | 2 | 3 | 4 | Housekeeping personnel is pleasant | 1 | 2 | 3 | 4 |
| 38 | | 1 | 2 | 3 | 4 | Noise levels are acceptable | 1 | 2 | 3 | 4 |