

**Patients as Customers. A Comparative Study on Patient Satisfaction in  
Private and Public Medical Practice**

**Master Thesis**

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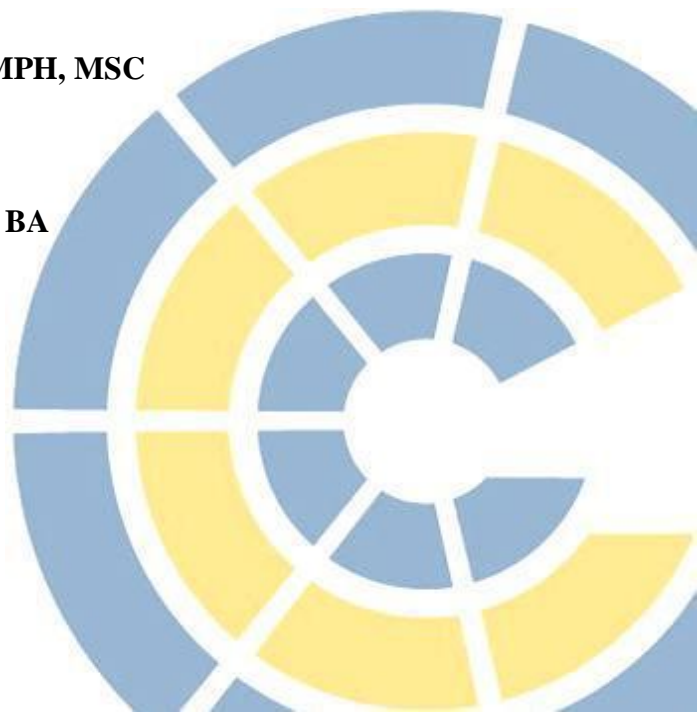
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## DECLARATION IN LIEU OF OATH

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Yuliya Lebedeva



Prague, 05.07.2018

## Abstract

The research paper is analysing patients as customers and compares patient satisfaction in public and private medical practices. Previous Austrian hospital efficiency studies date back to the 1990s, thus this thesis aims to address the situation as it is nowadays. The area of patient satisfaction is of particular interest to the healthcare sector in the view of its association with increased financial gains, improved patients' compliance with treatment, the prospect of coming back again, reduced employee turnover and decreased malpractice claims. The primary study objectives encompass assessing the level of patient satisfaction towards the healthcare services provided in the public and private hospitals, correlate the levels of patient satisfaction with the focal points of the HEALTHQUAL model laid down in the questionnaire, and to compare and critically analyse patient satisfaction between the two institutions. Moreover, the study correlates its primary findings with patients' socio-demographic variables, namely age, gender, education level.

Primary research was conducted by disseminating structured questionnaires in the public and the private hospital, constituting of the 14 statements to be evaluated on a 5-point Likert scale and 3 questions on the socio-demographic background. The results were presented by using frequency, percentage, minimum and maximum, mean, standard deviation as well as the Spearman's  $r_s$  coefficient being applied to detect correlations between the findings present, if any.

The findings of the primary data were analysed alongside the literature review. Given research revealed no apparent differences in patient perceptions of the total quality service and confirmed the major determinant being patient expectations. Moreover, no strong correlation has been identified between the patient satisfaction levels and the socio-demographic variables, except for gender – female patients appeared to be less satisfied with the medical services provided than male patients. The analysis of the research findings and conclusion allowed the author to recommend both healthcare institutions to improve certain aspects of the healthcare services provided, suggest the private hospital to re-evaluate its strategy keeping patient expectations in mind, as well as provide some recommendations for future research.

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## Glossary

The following abbreviations will feature in the course of this thesis:

IOM	-	Institute of Medicine
OECD	-	Organisation for Economic Co-operation and Development
CT	-	Computed tomography scanner
MRI	-	Magnetic resonance imaging
GP	-	General practitioner
WOM	-	Word of mouth
SPSS	-	Statistical Package for the Social Scientists

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## Chapter 1. Introduction

The principal idea of the given research originated via the author's personal interest, and the investigation of the patient satisfaction was considered pertinent in regard to the author's academic purposes.

### 1.1 Rationale and Justification

One of the major concerns faced by healthcare professionals is the improvement of quality in order to increase patient satisfaction. Given objective becomes inherent to the matter of service quality, since not only it represents the institution's accountability, but also affects overall conduct (Meyer and Bishop, 2007). Leebov et al. interpreted the concept of service quality as "doing the right thing and making continuous improvements, obtaining the best possible clinical outcome, satisfying all customers, retaining talented staff and maintain sound financial performance" (Leebov and Jean, 2003, p. 4).

At first glance, the question of patient satisfaction might seem bizarre, considering that the clinician's principal *raison d'être* is to serve the needs and desires of patients for their greater good. It might appear that patient satisfaction is a natural outcome of the encounter. However, less than a decade ago Ware et al. argued the importance of grasping the given concept: "even the most conservative critique of the literature would conclude that there is some evidence of the usefulness of the satisfaction concept in predicting what people do at a very general level (e.g. total consumption of health and medical care resources) and at the specific level (e.g. appointment keeping)" (Ware *et al.*, 1983; Carr-Hill, 1992a, p. 236). Nonetheless, satisfaction had already been proved to be a critical determinant no matter if an individual looks for medical consultation, follows the prescription or is in constant touch with a practitioner. The direct association has also been established between the treatment and the health status of the patient; although, what is yet missing, is an empirical proof whether the correlation is due to the doctor-patient relationship formed or the social aspect of recovery. Kincey et al. identified interconnection between the patient satisfaction and the compliance with prescription (Kincey, Bradshaw and Ley, 1975).

Some researchers consider patient satisfaction as a post-experience phenomenon reflecting the disparity between the expected and the perceived service quality (Lino *et al.*, 2009). According to Wilton and Tse, patient satisfaction is a dynamic variable, rather considered in the view of

an aggregation of patients' stimuli and measurements throughout the time (Tse and Wilton, 1988). John reflects on the given concept as a mixture of patients' perspectives of both the result and the process itself, constituting their attitude emerging from the degree of expectations as compared to an actual service experience (John, 1991). Literature review on this subject revealed inconsistency throughout the satisfaction formation process, whether in the field of services generally, or in the healthcare sector. The given process derivates from an amalgam of perceptions: image, value, expectations, and quality (ECSI, 1998). One weakness of the studies in patient satisfaction is their restrictive focus on either technical or functional variables, whereas patients' personal circumstances would require more flexibility when approaching the concept of satisfaction.

In 1992 Carr-Hill conducted a profound study on the correlation of the structure and the process within a healthcare institution and revealed that patient satisfaction is formed within six dimensions, namely, medical care and information, non-tangible environment, food and physical facilities, nursing care, the quantity of food and appointment bookings (Carr-Hill, 1992b). However, when it comes to evaluating the quality of healthcare services, patients as customers of healthcare institutions, often lack the necessary expertise in order to judge upon the technical aspects. Andaleeb (2001) argued that no matter if a patient is right in his judgement or not, the pivot point is to understand the whole picture of a patient's perception and exploit it in establishing acceptable standards of practice. Badri et al. and Elleuch identified interrelation between patient satisfaction and service quality so vigorous that certain studies do not differentiate the two concepts. Further studies proved the concept of patient satisfaction to be significantly broader in the view of customer emotions and intrinsic motivation and reaction (Elleuch, 2008; Badri, Attia and Ustadi, 2009). This thesis will focus on cumulative patient satisfaction and not the satisfaction related to one specific variable. Wilson et al. observed positive behavioural intentions resulting from customer satisfaction. Not only patients with positive encounter tend to return to the same healthcare institution and spread positive word-of-mouth, but also organisational expenditure is diminished (Wilson *et al.*, 2016).

Providers of hospital care should be proficient not only in medical care, but also possess the business expertise and the social skills. The given triangulation approach allows for the institution's profitability, the excellence measurement of treatment outcomes and the patient's satisfaction.

There is a widely held view that private hospitals are more efficient, accountable and sustainable than public hospitals, conversely believed to deliver rather equitable and evidence-based medical services. Thus, the author seeks to analyse the literature available on the topic in a systematic manner and evaluate patient satisfaction throughout public and private healthcare systems.

In order to conduct primary research private and public medical practices are set to be compared. A private hospital is defined as “a hospital similar to a group hospital except that it is controlled by a single practitioner or by the practitioner and associates in his or her office; a hospital operated for profit” (Medical Dictionary, 2018a, para. 1). A regional private hospital in the state of Tyrol, which preferred to remain anonymous, was approached for the purposes of this research. Quite limited data is available on this hospital, such as the land area, which covers approximately 45.000-55.000 sq. meters, and the number of beds, which is about 400. Questionnaires were distributed among the patients in the Orthopaedic and Trauma Departments.

For the purpose of consistency in this master thesis, the public hospital’s identity was also made anonymous. A public hospital is defined as “a hospital administered by officials of the city, country, state, or nation” (Medical Dictionary, 2018b, para. 1). Information stated on the website emphasises close cooperation of the healthcare professionals, the nursing department and the administrative and economic sectors, enabling the hospital to function 24/7. Potential customers are informed about the hospital administration, department and such aspects as the patient’s rights, complaints procedure, quality assurance commission etc. In-patient services advertised are a telephone and a TV for an extra charge, choice of 2 menus, social services and a strict list of house rules. Essential commodities such as toiletries, badges, slippers etc. are expected to be brought along by the patients themselves.

Responding to the complexity of the patient as a “customer” approach and the profoundly individualistic experience of each and one of the patients, this work is breaking it down to separate interdependent silos of criteria reflecting patient’s satisfaction in case of the private and the public healthcare providers.

## 1.2 Research Question

In order to examine the concept of patient satisfaction in the context of the healthcare sector the following research question will be answered within the progress of the given thesis:

*To what extent healthcare institutions integrate patient satisfaction into their strategy, and, whether there is the difference in stressing out its importance between public and private healthcare institutions.*

## 1.3 Research Objectives

In order to answer the abovementioned question, the following research objectives have been identified:

1. To assess the level of patient satisfaction towards the health services provided in the private and the public hospitals.
2. To determine the association between the focal points of HEALTHQUAL model and patient satisfaction.
3. To compare and critically analyse the importance of patient satisfaction between the public and the private healthcare institutions.

## 1.4 Research Hypothesis

Abovementioned objectives formed the basis for the following research hypothesis for the current study:

*H1: There is stronger patient satisfaction with the private healthcare institution than with the public healthcare institution.*

## Chapter 2. Theoretical Framework

### 2.1 Patient Satisfaction

#### 2.1.1 The Concept of Patient Satisfaction

The concept of patient satisfaction is seen by some academics as the divergence of the perceived service from the one expected (Fitzpatrick and Hopkins, 1983). Later, the concept was recognized as an interactive system of the customer's cognitive receptions, managing satisfaction as a course of reactions for the time period. Thus, the aggregation of persons, incidents, dimensions, and stimuli is effectively diminishing the measurement error of the principal variable associated with satisfaction as such (Johnson, Anderson and Fornell, 1995). Although the healthcare sector is essentially a business, patients are different from customers in the traditional sense of this concept. Patients do not enjoy elevated status given the poor health condition or trauma, and yet, they are sometimes forced to come to a decision regarding serious matters within a short time period. Oliver analysed customer's satisfaction in the view of a result or a process, referring respectively to its nature and causes (Oliver, 1980). John, on the other hand, emphasized the importance of a holistic approach: satisfaction is essentially the patient's reaction arising from the expectations being met or discredited (result perspective) and a process ascribed to the level of expectations a patient exercises to the service experience (John, 1991).

“A simple and practical definition of satisfaction would be the degree to which desired goals have been achieved” (Irish society for quality and safety in health care, 2003, p.10). Patient satisfaction is predominantly influenced by the healthcare practices carried out by different professionals. Constructive judgement is valuable not only to patients but the hospital itself (Johansson, Oléni and Fridlund, 2002). However, patient satisfaction is a subjective matter that could hardly be generalised. Linder-Pelz referred to five psychological factors as a possible stimulus: occurrence, value, expectation, interpersonal comparisons, entitlement (Linder-Pelz, 1982). Analysis of these determinants develops the notion of patient satisfaction into “the individual positive evaluation of distinct dimensions of health care” (Di Palo, 1997, p. 424)

## 2.1.2 Determinants

### 2.1.2.1 Expectations

Expectations constitute the mental picture of what patients anticipate to encounter when interacting with the healthcare system. The concept of expectations as a legitimate criterion of patient satisfaction was initially put forward by Stimson and Webb (Stimson and Webb, 1975). Research evidence presented by Abramowitz et al. not only identified variations of great extent between patients regarding their expectations and contentment with the acquired services, but also argued independence of the given elements when inferring a person's consequent degree of satisfaction (Abramowitz, Coté and Berry, 1987). Given conceptualization perplexes the idea of satisfaction as an appraisal tool and induces to associate "high" levels of proclaimed satisfaction with "high" levels of healthcare practices. Hence, it is crucial that "expressions of satisfaction should always be interpreted in the context of some understanding of the rationale that underlies those expressions rather than being taken at face value" (Locker and Dunt, 1978, p. 283).

Some of the baffling constituents to be taken into account are socioeconomic status, corresponding preferences, demeanour, and expectations associated. Subsequently, satisfaction was categorized in terms of "background", "interaction" and "action". "Background" expectations are straightforward and clear assumptions that a patient derived during the appointment and the period of medical care. "Interaction" covers the expectations that patients have concerning the communication and the combined effort to take place with healthcare professionals, such as, for instance, a doctor's conduct, approach and the extent of information shared. "Action" expectations rather encompass doctor's expertise and competence (Stimson and Webb, 1975). Furthermore, Fitton and Acheson's framework broke down "action" into "ideal" and "actual" expectations (Fitton, Acheson and Great Britain. Department of Health and Social Security., 1979).

Lovelock revealed that expectations are strongly built upon past individual experience with a specific service provider or any other provider in the corresponding industry. When there is no previous experience present, expectations can be influenced by various determinants, such as word of mouth (WOM), media and the marketing strategy of the healthcare organisation in question (Lovelock, 2011). Zeithaml et al. classified the expectation forming elements as "desired service, adequate service, predicted service and a zone of tolerance that falls between the desired and adequate service levels" (Chowhan, 2015, p. 47). An important element of

forming experience valuation is communication, as it allows the patient to get involved in a dialogue. In the context of healthcare service delivery, patients and healthcare professionals are involved in allegorical “webs of mystification and significance” where clinicians are primarily engaged in interpreting symbolic language of patients given the underlying tangible referents (Kessing, 1987; Owusu-Frimpong, Nwankwo, and Dason, 2010, p. 208). Given the tendency for patients to count more on one’s own sources of information, such as family, friends and acquaintances, WOM approach is not to be underestimated. Although WOM is invisible at the first sight, communication taking place in person, when of a negative character, can have very detrimental consequences for the business. Reicheld and Sasser established in their study that WOM is prevalent in case of patient dissatisfaction (Reicheld and Sasser, 1990). Coulter, on the other hand, emphasizes the fact that patients in the middle social class and older people go for participative decision-making and a patient-focused approach (Coulter, 2002).

Unmet expectations diverge from frustration to outrage, leading to a patient’s dissent or negligible compliance affecting an institution’s or a doctor’s credibility. The days of absolutist doctor authority are over, and patients will simply refrain from the ongoing and follow-up treatment. Aiming to develop a state-of-art healthcare structure, it is paramount to “read” patients, considering objective and technical parts, same as subjective and qualitative parts (Hoy, 2008).

#### *2.1.2.2 Patient Characteristics*

Meta—interpretive academic literature addressed before 1989 concluded that socio-demographic factors such as social class, marital status, age, and sex have little to do with satisfaction formation. Fitzpatrick stressed out insufficient coherence of the significance of these factors in satisfaction research (Fitzpatrick, 1991). Taylor and Cronin determined disparity when correlating patient expectations to their satisfaction (Taylor and Cronin, 1994). Moreover, patients are incapacitated to perceive the value objectively, given the lack of knowledge of the real costs incurred in the process of treatment (Peyrot, Cooper and Schnapf, 1993). The weakness of some aspects throughout academic literature is explained by a narrow focus on service quality variables (functional and technical), whereas patient satisfaction is strongly dependent from case to case (Mowen, Licata and McPhail, 1993). Very few consistent correlations between satisfaction and socio-demographic variables have been established. First of all, different target groups might perceive healthcare delivery differently: patients in the

older age group may be rather delicate, whereas people with higher level of education may have higher expectations and expect higher standards of service. Secondly, various groups may as well be approached in different ways: clinicians may communicate more information to the middle-class patients, and the older population may be addressed in a rather delicate manner (Strong and Dingwall, 1979). The case was summed up by Fox and Storms as follows: “The literature on satisfaction with health care presents contradictory findings about sociodemographic variables... The situation has grown so chaotic that some writers dismiss [sociodemographic] variables as reliable predictions of satisfaction” (Fox and Storms, 1981, p. 557).

Patient gender has typically not been recognized as a socio-demographic factor having a significant impact on the degree of satisfaction. Nonetheless, Khayat and Salter disclosed in their study that female patients were more satisfied with their health services experience than men. Moreover, women are more inclined to criticize inflexible schedules and lack of privacy as compared to men (Khayat and Salter, 1994).

Patient age is an important socio-demographic variable due to the growing population of elderly patients. Patient age has been recognized as a constant decisive attribute, supported by sufficient data leading to the belief that the older population tends to be rather satisfied with healthcare services than the younger one. The reasoning behind higher satisfaction rates of the older patients could be the fact that less knowledge sharing is expected from the attending physician (Cartwright and Anderson, 1981). Literature review suggests that elderly restrain from active participation in the decision-making process due to norms that were prevalent back in the days – an imbalance in patient-doctor relationship expected patients to be obedient and the concept of patient-centered care was not even on horizons. Later, Hopton et al. and Khayat and Salter agreed in their findings that the younger generation of patients are more likely to be less satisfied with care services provided, follow doctor’s consultation less and adhere to prescription instructions not so strictly (Hopton, Howie and Porter, 1993; Khayat and Salter, 1994). It was established by Hobby et al. that patients aged under 70 tend to be generally satisfied with both primary and hospital care (Hobby, Venkatesh and Motkur, 2005). Studies also revealed that the age factor harmonises the correlation between interaction style and satisfaction values (Peck, 2011).

Educational background is a variable that is of crucial pertinence on satisfaction (Anderson and Zimmerman, 1993). Wallin and other researchers revealed a trend where younger patients with



a university degree are less familiar with the staff in charge, whereas older and less educated patients were inclined to spend more time on the course of treatment or build a relationship with the attending physician(Wallin *et al.*, 2000). Their study concluded that the older generation, women, and patients of compulsory educational background were most satisfied with being informed on how care processes were arranged and coordinated, perceiving written information as being of a particular importance. Younger patients, men, and patients with a university degree, on the other hand, were aware of contact persons in case of any inquiry. Only half (52%) of the respondents in their study with a university degree perceived their issues to be dealt with. Conversely, the younger age group and patients with a university degree were satisfied the most with healthcare personnel's awareness and consideration of their anxiety. Although a weak statistical correlation between age, educational background and the degree of patient satisfaction was recognised, researchers concluded that higher education leads to generally better coordination among various institutions (Wallin *et al.*, 2000).

A number of studies suggest that certain “social-psychological artifacts” might alter patients’ expression of satisfaction (Levois, Nguyen, and Attkisson, 1981, p. 140). According to “social desirability response bias” some patients might deliberately report a greater degree of satisfaction when they are under the impression that that was the idea behind the survey. Likewise, “ingratiating response bias” takes place when patients try to get in good graces of medical staff or researchers themselves by providing a positive appraisal. It has also been pointed out that some patients, following “self-interest bias”, will refrain from any criticism for the sake of continuation of the healthcare service provided. In their research, LeVois et al. supported “self-interest bias” from the point of “economic view” and “social exchange perspective”(Levois, Nguyen and Attkisson, 1981). Williams developed a theory stating that participants are more inclined to express dissatisfaction in the event of an extremely severe incident taking place (Williams, 1994). First off, the paradox of “gratitude” occurs as a result of the bewildered perception of satisfaction. The given phenomena is predominantly spread among elderly patients. Another phenomena, depicted by Ley is “simple indifference”, meaning participants see no point in sharing their troubles identifying them as being either irrelevant or too complex (Ley, 1982).

## 2.2 Service Quality

Patients get in touch with healthcare institutions and are assisted via the impalpable offer of service. The concept of service was depicted by Kotler and Keller as “any intangible act or performance that one party offers to another that does not result in the ownership of anything” (Kotler and Keller, 2009, p. 789). Satisfaction or dissatisfaction with the service offered results from its potential to capture and meet implicit and explicit patient needs.

“A simple definition of quality in health care is the art of doing the right thing, at the right time, in the right way, for the right person – and having the best possible results” (Zineldin, 2006, p. 66). Given the vast variety of definitions of service quality throughout academic literature prominent unanimity was achieved on the interpretation provided by the Institute of Medicine (IOM): “quality of care is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (Lohr K. N., 1990, p. 21).

Donabedian perceived service quality as a complex study of the institution’s structure, the correlation of practices with the structure (process dimension) and the aftermath of a patient’s encounter (result dimension). The author determined result dimension to be the weakest link of the study chain given the perplexity of judgement (Donabedian, 1980). Donabedian’s research was the turning point in healthcare service, shifting the focus from healthcare center-oriented to patient-oriented approach. Later, Donabedian’ findings were reinforced and supported by Vuori, who introduced effectiveness, efficiency, and adequacy as inherent elements of quality measurement (Vuori, 1982). Choi et al. suggested protracted timescale between the point when service was provided and the occurrence of consequences, such as waiting time and billing procedures, to be the cause (Choi *et al.*, 2005).

Patient satisfaction is a challenging area of highly competitive encounters for healthcare organizations. In order to surpass other players on the market, each element of the service quality needs to be prioritized and not just the equipment, premises, and assistance alone. “Various methods and tools are used by medical administrators, researchers, and healthcare policymakers in an effort to find a better way to provide a high quality of the service” (Lee, Lee and Kang, 2011, p. 20). Zineldin empirically examined the significance of the cumulative amalgam of various postulates on service quality given the high competition, wide-ranging research and the power of patients. In the course of his research technical-functional models were elaborated on and formed into, what was called, a 5Qs model consisting of the quality of

Object, quality of Process, quality of Infrastructure, quality of Interaction, quality of Atmosphere (Zineldin, 2006).

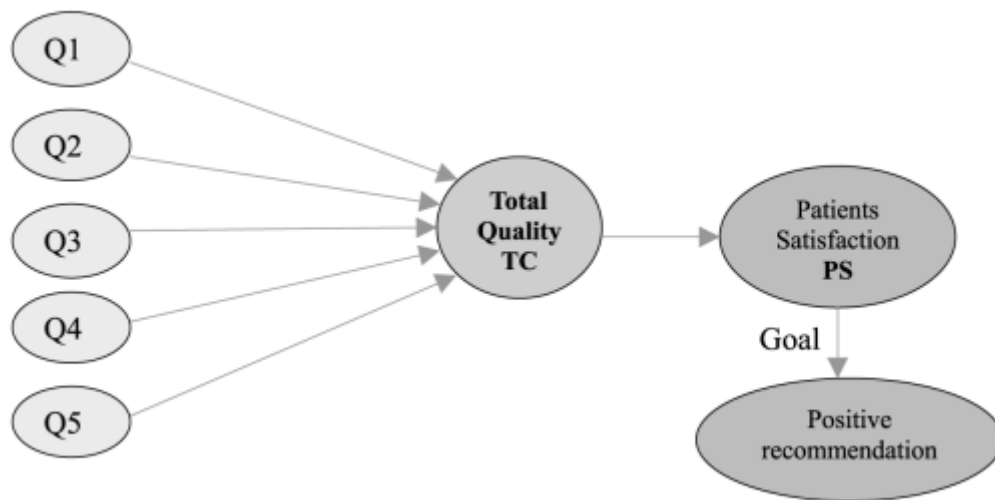


Figure 1. Zineldin's 5Qs: a multidimensional model of healthcare attributes and patient satisfaction.

When it comes to evaluating the service quality patients are often fairly not competent to form an opinion of various aspects of services provided. However, Wysong and Driver noted that patients draw their perceptions on both the technical and professional features from the check-up proficiency and competence of nurses performing simple medical procedures as drawing blood samples for example (Wysong and Driver, 2009). Ultimately, researchers come to terms recognising patient satisfaction in line with a “marketing concept” – patient’s experience is a relevant opinion, disregarding its subjective nature, encouraging healthcare professionals to comprehend and set up common guidelines of service (Andaleeb, 2001).

Duggirala et al. examined critically important elements of the patient-perceived total quality service, discussed in more details below (Duggirala, Rajendran and Anantharaman, 2008).

*Infrastructure.* The physical image and the environment of the healthcare institution play a huge role in forming initial patient perception. Thus, there is a stimulus to keep the hospital’s infrastructure safe and clean as well as to maintain a comforting environment, while the patient satisfaction improves with the quality of health service delivery. Three major reasons for sustaining sanitary conditions are laid down by Fottler, Food, and Heaton as follows:

1. Great prospects of satisfying and even exceeding patient expectations.
2. Elevates states of mind, spirits, and atmosphere for both patients and healthcare professionals.

3. Benefits all departments within the hospital (Fottler MD, Ford RC and Heaton CP, 2002).

Physical environment aligned with patients' expectations can positively shape attitudes and behaviours (Owusu-Frimpong, Nwankwo, and Dason, 2010; Sung Moon *et al.*, 2011). Researchers share a common view on what tangible assets of the clinical infrastructure are: accommodation aspects, such as "ambience/atmosphere, non-visual aspects (e.g., temperature, natural light and fresh air, scent, noise, music, peaceful, tranquil and maintenance services), space (e.g., location, layout, equipment, furnishings, cleaning and parking lot), signage (e.g., style, decor and size), facility reliability, process flow, capacity balance, control of flow process flexibility, timeliness, speed ranges of services offered and communication" (Bakan, Buyukbese and Ersahan, 2014, p. 299).

*Staff quality.* Staff quality incorporates a quality assessment of all healthcare professionals (practitioners, nurses, support staff etc.) involved in service delivery, whether it is an emergency, the process of treatment or a defining moment. Employees are believed to possess following qualities: empathy, assurance, responsiveness, courtesy, timeliness, good communication skills, friendliness, reliability, competence, flexibility, professionalism, and honesty (Duggirala, Rajendran, and Anantharaman, 2008).

*Doctor care.* Patients generally count on being seen by qualified professionals, who will address their concerns and communicate clearly on their health condition, treatment procedure, prescription and outcomes (Andaleeb, 2001). Healthcare providers must operate within the framework of hospital guidelines while being conscious of patients' desideratum. Cohen revealed in his study that patients were mostly dissatisfied with the lack of communication, the inability of clarifying one's own doubts, lack or no follow-up in place and insufficient appointment duration (Cohen, 1996). Encounter with an incompetent doctor offsets any prior positive perception of the process of clinical care and is considered to be a dimension of critical importance (Padma, Rajendran and Sai Lokachari, 2010).

*Nursing care.* The literature review identified a strong correlation between nursing delivery quality and the patient satisfaction (Abramowitz, Coté, and Berry, 1987; Duggirala, Rajendran and Anantharaman, 2008). Nursing care was defined as "meeting all needs of the patients or patients you are looking after" (Tafreshi, Pazargadi and Abed Saeedi, 2007, p. 321). A friendly and cheerful nurse can offset the negative aftermath of encountering an incompetent

practitioner. The biggest challenge for a quality service delivery proved to be a lack of human or material resources.

*Communication excellence.* Patient perception of quality care directly corresponds with the ease of acquiring information and feasibility of bilateral exchange. It is of crucial importance to adequately inform the patient on his/her health status, forthcoming medical treatment together with any subsequent follow-up (Duggirala, Rajendran, and Anantharaman, 2008). Mediocre communication is a hurdle to building profound relationships between patients and healthcare personnel, subsequently projecting detrimental business outcomes.

*Administrative conduct.* Patient admission, stay and discharge are crucial factors of total service quality assessment. Studies revealed major causes of patient frustration to be long waiting times and material elements in service delivery (Duggirala, Rajendran and Anantharaman, 2008; Padma, Rajendran and Sai Lokachari, 2010). In order for a patient to form a pleasant impression, a healthcare administration procedure should encompass an effective appointment system, the availability of ambulance services and the integrity and ease of the encounter.

*Safety index.* Healthcare institutions must ensure a safe and secure stay of patients. Safety, as a basic need, is provided for by law and thus, should be regarded as a quality standard. The matter of safety must be comprehensively integrated on each level of the healthcare system – ramps and elevators should be in place, regular technical inspections should be carried out and cautiousness when prescribing drugs to patients should be executed, not to cause an allergic reaction or any adverse effect whatsoever (Padma, Rajendran and Sai Lokachari, 2010).

*Comprehensive patient judgement.* One's own positive experience is linked to an improved satisfaction of both parties, compliance with treatment, the prospect of coming back again, reduced employee turnover and the number of malpractice lawsuits filed, yielding higher profits, better risk management and a stronger position on the market (Põlluste, Kalda, and Lember, 2000). Moreover, a happy patient tends to recommend a particular hospital to family and friends and spread around a good word of mouth.

*Social responsibility.* Healthcare organisations must attain high medical service delivery quality, patient satisfaction and profitable patient care within the framework of an overly ambitious market provided the scarce resources. Thus, hospitals must incorporate healthy economic growth in their strategy and take into account environmental issues in the

best interests of the community's well-being and its progress. (Duggirala, Rajendran, and Anantharaman, 2008). Rohini and Mahadevappa identified social responsibilities of a hospital that encompass encouragement and further development of the people-oriented approach, accountability, social assistance, workplace safety, recycling and reducing energy consumption, as well as promoting education and research affairs (Rohini and Mahadevappa, 2010).

According to Flood and Romm, maintaining both quality and customer satisfaction calls for regular operational "redesigning" and customer-oriented innovation in order to satisfy "customer needs" (Flood and Romm, 1996). Academic research shows that the concept of satisfaction is more of an emotional nature, rather than of a cognitive nature. Coulter embraces the given concept via the prism of behavioural science, associating it with the peak of the consumerism trend and the healthcare policy reforms aimed at delivering value for money on the competitive quasi-market of health services (Coulter, 2002). Thus, consumer satisfaction is based upon the critical evaluation of health services in terms of "responsiveness, friendliness, courtesy, competence, access, communication and availability of the physician and other hospital staff", that satisfy expectations and boost the value delivered (Owusu-Frimpong, Nwankwo and Dason, 2010a, p. 207). Patients frequently assess their healthcare experience according to the principle of standardisation, i.e., the structure and the process of the encounter with the resultant aftermath on the behavioural motives. Patients, in turn, take into account both the physical environment and the infrastructure of the healthcare institution, as well as various merits of quality such as the variety of the menu, parking facilities and an invoice process when it comes to forming one's own impression. When choosing between various healthcare service providers, patients oftentimes give preference to the one that delivers advantageously (Hennig-Thurau, 2001).

Dason and Owusu-Frimpong observed that in the course of the societal shift in the 21<sup>st</sup> century, the paternalistic approach is of less relevance in the context of healthcare (Owusu-Frimpong, Nwankwo and Dason, 2010b). Communication, nursing staff empathy, and interpersonal relationship are ranked the highest in terms of their importance (Curtis, 2004). However, research on the quality of health services provided and on patient satisfaction is narrowly spread among the healthcare institutions and is of insignificant efficiency (Coulter, 2002). Thus, a research study of this nature aims to be useful in orienting hospitals towards a more patient-centred healthcare strategy.

### 2.3 Public and Private Hospitals

A public hospital is defined as a healthcare institution that is managed by, or, on behalf of the state. Patients generally perceive a public hospital to be big, premises-wise, hence, the number of beds provided is greater than in private hospitals. Some of the pros encompass the fact that public hospitals cannot refuse anyone, thus the treatment is secured. Moreover, given the public funding, medical services are more cost-efficient compared to those provided in the private institution. Some of the drawbacks to consider are the lack of adequate communication between doctors and patients despite the greater number of employees and delayed lengthy waiting times. Besides, nurses are oftentimes overwhelmed with patients, depriving them of personalised care.

Private hospitals are privately owned and managed, admitting patients who are attended by a practitioner of their own preference. Accommodation, medical treatment, and services provided by the private hospital are paid for by the patients themselves. In general, this sector exists to satisfy patients' willingness-to-pay for a variety of healthcare professionals, individual facilities and quick admission to treatment, within the straightforward understanding that individuals should be able to exercise choice in health care (APHA, 2018). On the bright side, due to being generally smaller in size than public hospitals, they are more capable of providing personalised care. Private hospitals admit a smaller number of patients, which allows nurses to take care of only a few at a time. In many cases, it is more feasible for private healthcare institutions to have a state of art technology and comfortable facilities, providing patients with superior experience resulting in greater satisfaction. Waiting times are generally shorter and the length of the consultation is adequate. On the other side, treatment in the private hospital tends to be more expensive and they often accept only certain types of insurance coverage. Lastly, private hospitals normally possess a limited number of beds.

The Austrian healthcare sector is primarily financed by the social health insurance contributions and is considered to be hospital-centered. Thus, hospitals incur 40% of Austria's overall healthcare expenditure (OECD, 2018). The major determinant of a hospital's efficiency is its ownership type (Czypionka *et al.*, 2014). Hospitals in Austria are owned either publicly or privately. Public hospitals are owned by the federal state or a province. Private hospitals are owned under the private law by private persons, business associates or religious orders (not for-profit). 75% of total bed capacity in Austria are supplied by acute care hospital sector, out of which 72% are publicly owned (i.e. owned by the federal states, state-run hospital

companies, municipalities and sickness funds), whereas 28% are privately owned by non-profit hospitals (i.e. owned by religious orders, other confessional agents, foundations). The remaining 25% are supplied by private for-profit hospitals, of which only a few provide services on behalf of social health insurance (Czypionka *et al.*, 2014). Private for-profit hospitals operate under distinct statutory framework compared to public hospitals' funding mechanisms, meaning that they engage self-employed physicians and remain the right to refuse the admission of patients. According to the standard economic theory, private hospitals are supposed to surpass public hospitals in their performance (Gapenski, Vogel and Langland-Orban, 1993). Whether given presumption persists will be discovered in the course of this research paper. Provided that the most recent study on Austrian hospital efficiency was conducted back in the 1990s, no conclusive opinion can be drawn to date (White and Ozcan, 1996). However, Shen *et al.* claim, that instead of the ownership type "one of the strongest predictions of economic theory is that providers react to their market environment" (Shen *et al.*, 2005, p. 4). Duggan supports the assumption that private non-profit and private for-profit hospitals are to some extent more sensitive to changes in financial enticements than the public hospitals (Duggan, 2000). Subsequently, Kornai examined the "soft budget syndrome", discussing whether the public healthcare institutions enjoy softer budget constraints as compared to their privately-owned counterparts (Kornai, 2009). The author concluded that a soft budget constraint is already out there, in a sense that public hospitals are having an easier time to bail out, unlike the privately-owned hospitals.

Previous studies conducted on the hospital efficiency in Austria took into account the reform of the hospital financing system only (O'Neill *et al.*, 2008). Hofmarcher *et al.* analysed the transformation of hospital efficiency in the time period from 1994 to 1996 given the implementation of the new hospital financing system, yet, practically no shift in terms of efficiency was recognised (Hofmarcher, Paterson and Riedel, 2002). In response to a positive technological development that developed between 1996 and 1998, Stepan and Sommersguter-Reichmann analysed the healthcare sector in Austria with regard to constant returns to scale and variable returns to scale. The authors discovered that publicly-owned hospitals were performing rather mediocre in terms of the technical and scale efficiency, as compared to privately-owned hospitals (Sommersguter-Reichmann and Stepan, 2002).



## 2.4 The Austrian Healthcare System

Austria is one of the wealthiest economies in the world with a gross domestic product (GDP) of USD 47,605 ( $\approx$  EUR 41,009) per capita (Countryeconomy, 2018). Moreover, the country ranked 24<sup>th</sup> in the UN Human Development Index of 2016, demonstrating high standards of living (UNDP, 2016). As for demography, the Austrian population amounts to 8,751,820 to date (Worldometers, 2018).

The Austrian healthcare system is based on the Bismarck Model and is characterised by universal health coverage and “laissez-faire” approach towards the choice of providers. There are 510 physicians licensed to practice per 100000 inhabitants in total, out of which 165 are general medical practitioners and 103 belong to a surgical group of specialists (Eurostat Statistics Explained, 2017). Density ranges from 7,3 physicians per 1000 inhabitants in Vienna to 3,5 in rural areas. Health insurance is mandatory in the country. The healthcare system in Austria is characterised by a collaboration of numerous actors, within the legal framework established by law. Healthcare is represented at the federal level by the Austrian parliament (comprising of the National Council and the Federal Council), the Federal Ministry of Health (BMG), the Federal Ministry of Labour, Social Affairs and Consumer Protection (BMAASK), the social security institutions and support parties (social actors: representatives of employers and employees and professional unions). Social insurance in Austria is mandatory, funded through insurance contributions guided by the principles of solidarity and self-governance. The fact that the social insurance is compulsory indicates its statutory nature, eliminating competition between social security institutions in order to adequately distribute the risk exposure. Insurance contributions are associated with gainful employment, whereas, self-employed and other groups of people are obliged to apply for insurance in any case. Total insurance expenditure is calculated independent of the individual risk factor. The principle of solidarity ensures that people from different income groups are provided equal access to health services. This compensating system requires, in the majority of cases, individual contributions in the amount of 7.65%, equally shared between the employer and the employee (Bundesministerium Fur Gesundheit, 2013)

The Main Association of Austrian Social Security (Hauptverband der österreichischen Sozialversicherungsträger) is based on a decentralised structure delegating the authority to 22 autonomous entities – 15 providing health insurance and 7 general insurance associations. Austrian social security encompasses health, accident and pension insurance. The system was

formed upon various geographical and professional reasoning. Main Association of Austrian Social Security Institutions operates in the best interests of the society and acts on behalf of a delegate in an international arena. The principle of independent administration – delegation of certain responsibilities to individuals personally interested in this - was eliminated with the country's formation, except for years 1939-1947. This way, both parties – employees and employers receiving benefits and paying contributions, are literally involved in the system of social security (Österreichische Sozialversicherung, 2015).

Austrian Social Security		
Main Association of Austrian Social Security Institutions		
Accident Insurance	Health Insurance	Pension Insurance
Austrian Workers’ Compensation	9 District Health Insurance Funds	Pension Insurance Institution
	6 Occupational Health Insurance Funds	
	Social Security Institution for Trade and Industry	
Insurance Institution for the Austrian Railways & Mining Industry *)		
Social Security Institution for Farmers		
Insurance Institution for Public Service Wage and Salary Earners		
		Insurance Institution for Austrian Notaries
*) This institution handles accident insurance for railway workers itself, the Austrian Workers’ Compensation Board takes care of miners		

*Table 1. Main Association of Austrian Social Security Institutions.*

The three cornerstones of the Austrian healthcare system are solidarity, affordability, and universality. The national system guarantees fair and unbiased access to health services for all people residing in the country, no matter of one's own age, gender, nationality, social status or income. All insured inhabitants are legally eligible to access following medical services:

- Primary health care services provided by contract physicians of the Austrian social health insurance funds
- Specialised in-patient and out-patient care

- Emergency care
- Maternity services
- Psychotherapy
- Health technology such as X-ray and laboratory tests
- Physiotherapy, ergotherapy, speech therapy, curative massage and similar therapies provided by health professionals other than physicians
- Dental services
- Prescription medicines
- Medical devices such as walking aids, wheelchairs or blood glucose strips
- Ambulance services
- Mobile care and home care
- Preventive and health promotion services including vaccinations or screening examinations
- Rehabilitation and long-term care services
- Care for people with disabilities (Bundesministerium Fur Gesundheit, 2013).

In regard to in-patient care, Austria ranks 1<sup>st</sup> in Europe with 26.1 acute care hospital discharges per 100 residents and 6.6 days of the period of hospitalisation on average, as compared to 6.0 EU-wide average (Bundesministerium Fur Gesundheit, 2013). In 2011, 273 hospitals were registered – 129 public and non-profit and 144 private institutions, altogether amounting for 64,000 hospital beds. When it comes to financing and expenditure, 76% is covered by public sources – social health insurance funds, the Federal Government and the local governments, whereas the rest is compensated by private healthcare expenditure. The greater proportion of expenditure is accounted for in-patient care. In order to ensure the quality of care, the state is planning on conducting patient surveys to collect patients' feedback and help develop advanced strategic management of the healthcare system (Bundesministerium Fur Gesundheit, 2013).

## 2.5 Patient Satisfaction in Austria

Key elements shaping patient satisfaction according to the Austrian Red Cross centre and Orthopadisches Spital Speising GmbH are the strong economy and the positive attitude. Back in 2008 research conducted on Austrian citizens revealed that the quality of healthcare was rated a 92/100, access a 92/100, affordability a 79/100 (Jankauskiene and Jankauskaite, 2011). According to the report published by European Commission in 2007 54% of Austrian

population found availability and access to hospitals “very easy and fairly easy” (European Commission, 2007a). The ratio of beds per number of Austrian residents is 7.55 beds per 1000 people, which exceeds European Union median of 4.2 beds per 1000 people (OECD.Stat, 2018). According to OECD data, there are 29.9 Computed tomography (CT) scanners per 1000 people as compared to EU average of 19.2, and 18.0 Magnetic resonance imaging (MRI) units per 1000 people in comparison to the EU average of 9.5 units per capita (OECD, 2010). Given data potentially interpret the high level of patient satisfaction and reduced waiting times in the country. The Austrian Red Cross centre and Austrian healthcare institutions address patient of paramount importance. The mission statement of the Austrian Red Cross is stated as follows: “To improve the lives of vulnerable people by mobilizing the power of humanity” (Osterreichisches Rotes Kreuz, 2018, para. 1). Healthcare in Austria is of such a noble cause that volunteering at the Red Cross centre complies with the army service compulsory for young male Austrians. In his research, Andre Picard identified that a general practitioner (GP) in Austria is earning on average 101241,62 euros per year, which is approximately 3.2 times higher than average wage rate in the country (Picard, 2017).

According to Eurobarometer Austria is rated as number one country in the EU in terms of easy access to care. Although the country was also ranked first in the “Euro Health Consumer Index”, it slackened behind the Netherlands, Denmark, and Ireland down to 4<sup>th</sup> place in 2009. The downgrade was determined to be due to a deficiency in the unified service catalogue. Subsequent fall took place in 2012, placing Austria to 14<sup>th</sup> place (HCP, 2012). Overall public attitude towards the healthcare system is positive. Given opinion is reflected in the GfK Austria survey commissioned by the Federal Ministry of Health in 2011 evaluating performance in the hospital sector. Data derived established that 63% of the participants are “very satisfied” with the system in general, whereas 77% are “very satisfied” with their experiences of hospital stays. Notably, 73% of Austrians consider their healthcare system to be superior to that of the rest of the EU (European Commission, 2007b).

The Eurobarometer survey established that 93% of the participants rated the quality of service offered by the general practitioners and the specialist physicians as “good” and recognize few limitations in terms of the access and affordability. Patients highly respect general practitioners and regard their professional opinion greater than the data they find on the internet or mass media (European Commission, 2007a). “Cross-sectional patient survey” authorised by the Federal Ministry of Health analysed patient satisfaction within in-patient care, particularly

focusing on crossovers and interfaces. Approximately 15% of patients affirmed that their referring physician either did not instruct them aptly or at all prior to their admission to hospital (Gesundheit Österreich GmbH, 2018). 99000 copies of the questionnaire were disseminated among 49 hospitals. 63% up to 95% of patients were very satisfied with in-patient care, whereas 85% and 99% were very satisfied or quite satisfied with their experience after being released from the healthcare institution. Strikingly, only half of the participants in need of post-hospital care stated the absence of the contact person in charge of after-care coordination, and at the same time, a fifth of the respondents acquired conflictive information from different healthcare professionals. According to the Eurobarometer statistics, a greater part of Austrian population considers safety and quality of care as excellent. Compared to the numbers across the EU, only 19% in Austria assume there is a chance of suffering from a mischief (hospital-acquired infections and false diagnoses) while receiving medical care in a hospital, predominantly women and those in lower socio-demographic categories. De facto, 12% of Austrian patients disclosed to have encountered a “negative medical incident”. The lowest ranking for the country was scored in the category “gaining consent before a surgical intervention”. Compared to 91% in neighbouring Germany, Austria is placed in the 6<sup>th</sup> place accounting for 81%. Patients placed specific emphasis on the effectiveness of medical staff training when evaluating their satisfaction with the healthcare system in general. However, given the lack of internationally recognized standards for data collection, interpretation and comparison on patient satisfaction and safety, there is little room left for constructive appraisal (European Commission, 2007a). On the not so bright side, certain inequalities in the provision system are alarming, such as waiting times, pharmaceutical costs and the bureaucracy of health insurance funds (Bundesministerium Für Gesundheit, 2010). According to studies, people from underprivileged layers of the population have limited access to preventative care services or dentistry, placing Austria at the top of the list in the given category, right after Poland and Spain (Listl, 2011).

## 2.6 Orthopaedic and Trauma Population

Orthopaedic and trauma surgeons are committed to the diagnosis, treatment, prevention and rehabilitation of injuries and traumas, ailment and illnesses of the body’s musculoskeletal system. This encompasses bones and joints, as well as the conjoint structures that essentially allow the motion – ligaments, tendons, muscles, and nerves. This department specialises in cases of two natures: 1. Trauma – injuries to the musculoskeletal system, such as broken,

fractures or dislocated bones and soft tissue injuries; 2. Congenial and degenerative conditions pertinent to musculoskeletal system, including infections and tumours. Injuries vary between low energy fracture to numerous wounds such as those caused by a casualty. Contamination of bones and joints as well requires urgent hospitalization and medical treatment. Orthopaedic and trauma surgeons most frequently perform joint arthroscopy, bone fracture repair, arthroplasty, general repairs on damaged muscles or tendons and corrective surgery. In general, a patient is going through an initial consultation, physical examination, inspection of previous records, further diagnostics and the treatment plan (Beckett, 1999).

Orthopaedic and trauma patients represent a demanding target group, that commonly stays at hospitals longer, whose treatment is usually based on the standardised code of conduct and managed according to the healthcare institution's ground rules. The point of concern is, that standardisation does not take into consideration personal needs, resulting in distinct perceptions of clinical experience. Meta-analysis of literature available revealed that although it is crucial for patients to receive personalised attention, nursing care is not exactly part of it, despite being competent of delivering positive experiences (Lau-Walker, 2006; Basu and Meltzer, 2007; Suhonen *et al.*, 2010). The concept of individualised care has been profoundly studied in the orthopaedic and trauma surgery, howbeit, general unanimity in these regards has not yet been reached. In order to individualise the patient's experience, such factors as the individual circumstances, general health status, competency and predilection on decision making should all be taken into account (Land and Suhonen, 2009).

Various legitimate instruments designated to evaluate outcomes in orthopaedic and trauma surgery do not exactly emphasize patient satisfaction. For instance, when it comes to knee arthroplasty, failure to meet patient preoperative expectations unequivocally leads to subsequent dissatisfaction. Similar results were identified among patients of spine surgery, appearing to have a greater disparity between preoperative expectations and surgical outcomes (Soroceanu *et al.*, 2012). Patients who underwent hand surgery evaluated their satisfaction based on pain relief, the ability to carry out everyday tasks, physical look, energy, dynamics of movement and realization of expectations (Marks *et al.*, 2011). In regards to foot and ankle surgery, patients appreciate the communication with the medical staff, pain relief and the dealing with footwear (Dawson *et al.*, 2012). Parents, whose children were hospitalized due to orthopaedic or trauma reasons, revealed that more information communication would have been appreciated (McGregor, Doré and Morris, 2013). On the other hand, Godil *et al.* rejected

the concept of patient satisfaction as a valid measure of general quality and performance of surgical spine care (Godil *et al.*, 2013). Their research analysed interrelation between satisfaction levels reported by patients and surgical outcomes, as well as satisfaction with various healthcare functions carried out in the process of hospitalisation. As a result, it was established that although being essential, patient satisfaction should not be applied as a proxy for general surgical settings. Shirley and Sanders stated that correlating patient satisfaction to quality-of-care processes is vital, in a sense that the data retrieved might be exploited when it comes to authentication and indemnity formulas (Shirley and Sanders, 2013). It was established that surgeons are keen on satisfaction metrics, albeit going beyond their charge, simply for the sake of ultimate positive satisfaction. Factors within the scope of surgeons' control are open to communication with patients and their families and down to earth preoperative expectations. A challenge the orthopaedic and trauma population is facing is the inability to identify their attending physician during discharge. The situation is further complicated by the fact that traumatic injuries permit in-patient surgery unlike elective surgeries or medical entrée. Naturally, the patient-physician relationship is poorly developed, thus bypassing a crucial piece of the big picture as seen through the patient's prism. While communication and interaction with the physician at charge are of prominence to patients, surgeons tend to concentrate on the operative quality and results. Therefore, establishing an efficient patient-physician contact is a complicated but pivotal process (Harris *et al.*, 2009; Morris *et al.*, 2014).

Building upon a holistic academic literature review, Cherkin *et al.* established that patients who referred to rehabilitation after surgery express higher levels of satisfaction compared to those, assigned an informational intervention (Cherkin *et al.*, 1998). These finding, however, are inconsistent with the Kincey *et al.*'s observation that up-to-dated patients are satisfied more (Kincey, Bradshaw and Ley, 1975). In order to achieve that, the attending physician should be present during the appointment, concentrate entirely on the patient, be attentive and ask questions. Prakash further stated that recognizing and accepting risks and ambivalence can create an atmosphere of trust and engagement (Prakash, 2010). The AIDET - Acknowledge, Introduce, Duration, Explanation, Thank you abbreviation can serve as a useful key to establishing a dynamic patient-physician relationship (Shirley and Sanders, 2013).

Certain aspects of patient satisfaction, as it was mentioned before, are out of the scope of influence of an individual physician or a surgeon. Typically, patients with better health conditions, functional status or nether pain intensity appear to be more satisfied as compared

to patients with chronic fatigue syndrome, chronic illness or opioid dependence (Säilä *et al.*, 2008). Another qualitative disparity was identified between in-patient and out-patient experiences. In their study, Williams *et al.* revealed that in-patient satisfaction with elective admissions in paediatric orthopaedics was greater than for trauma admissions (Williams *et al.*, 2011). Ultimately, patient satisfaction is cultivated in the physical and the emotional environments. Classy commodities in the rooms, pieces of art, illumination, - are all wee elements affecting satisfaction in a positive way. The patient experience can also be brightened up by staff sympathy and tolerance, prompt care service and an individualised approach. Säilä *et al.* stated that greater satisfaction is associated with extended duration of care, as well as with the lasting employment of the physician (Säilä *et al.*, 2008).

Ultimately, as Christy Dempsey reflected on her 30+ years of experience in healthcare: “A great patient experience connects clinical excellence with outcomes. It connects efficiency, quality, behaviours, and mission with the caregiver experience and engagement. The patient experience relies on teamwork, communication, shared decision making, empathy, compassion and human connection. It is also influenced by dignity, respect, and humanistic values, as well as the ability and willingness of clinicians to relate to their patients as people, not as a medical condition or a room number” (Dempsey, 2017, para. 4).

## 2.7 HEALTHQUAL

The SERVQUAL model was developed by Parasuraman and associates in cooperation with the Marketing Science Institute in an attempt to capture the conceptual idea of generalisable product- and service-specific attributes (Parasuraman, Zeithaml and Berry, 1988). The given instrument serves as a bottom line for cross-sector service quality generation. The researchers settled on five service quality dimensions, namely: (1) tangibles: infrastructure, technology, staff image; (2) reliability: ability to carry out the agreed-on services precisely and meticulously; (3) responsiveness: willingness to assist clients in a timely manner; (4) assurance: staff expertise and trust they embolden; (5) empathy: personalised approach and consideration. At its final version, SERVQUAL composed of 22 “expectations” and “perceptions” related statements to be evaluated according to 7—point Likert scale. This model which is unique, and in a sense, widely applicable in both academic and practical fields, allows to identify the expectations-perceptions “gap”, essentially relevant in the healthcare sector (Bopp, 1990). Consequently, the measurement approach has been criticised for disregarding



technical aspects of service quality and its theoretical underpinning. Following that, Carman identified the need to further elaborate on the dimensions of the model, whereas Babakus and Boller proposed to merge “expectations” and “perceptions” components (Carman, 1990; Babakus and Mangold, 1992). As a pivot point, solid parallels were drawn between total quality service and customer satisfaction was put forward by Cronin and Taylor (Cronin, Taylor and Taylor, 1994). From the methodological point of view, the dimensions of SERVQUAL were questioned in their generality. Following the controversies around the model, SERVPERF came to life as a three-column measurement scale comparing clients’ anticipated fair expectations to their actual experience (Parasuraman *et al.*, 1994).

It was suggested by Donaldson that the service quality assessment throughout healthcare sector should take into consideration service quality pillars as defined by IOM (Institute of Medicine), such as “the documented data for quality improvement efforts; the inspection of facilities and individuals against standards; the provisions of right-to-know with regard to the patient’s or family members’ decision-making for treatments; the controls and reports about healthcare service based on times; and the provided healthcare information to the community” (Donaldson, 1999; Lee and Kim, 2017, p. 3). Shelton’s research introduced four service quality classifications, namely accessibility, communication, efficiency, perceived quality, care, and medical facility and devices (Shelton, 2000). Doran and Smith, on the other hand, had a perspective through the lens of empathy, responsiveness, reliability assurance and improvement of care services (Doran and Smith, 2004). Unlike other researchers, Choi *et al.* brought in external organisational healthcare support, such as “waiting time for medical examinations, quick and simple payment procedure, efficiency; tangible equipment; and staff and physician concerns including service quality aspects related to physicians’ and nurses’ abilities to explain the medical treatment process to the patient, friendliness and helpfulness” (Choi *et al.*, 2005; Lee and Kim, 2017, p. 3). Scobie *et al.* in turn added accessibility, tangibles, efficient costs, values, timeliness, policy, and implementation to improve quality, understanding the expected value of customers, and capabilities of the hospital (Scobie *et al.*, 2006). Deriving from the academic contributions of each of the abovementioned researchers, the HEALTHQUAL model came into existence, adjusted particularly to the healthcare industry, focal points being care processes and results. Given model integrates perspectives of the patients, clinic’s standpoint, and the view of accredited institutions in terms of five criteria: empathy, tangibles, safety, efficiency, the degree of improvements of care service (Lee, 2017).

Table 2. *HEALTHQUAL*

<b>HEALTHQUAL</b>	
<b>Dimension</b>	<b>Definition</b>
Empathy	The attitude of the provider to better serve patients by actively listening and reflecting patients 'emotions while providing care services
Tangibles	The use of advanced medical equipment and physical environment to provide proper care services emphasizing the value of the place
Safety	A provider's capacity to maintain a comfortable and safe environment for patients, potential customers, and employees in the hospital
Efficiency	How efficiently the provider makes efforts to utilize medical resources when delivering patient care services for the medical costs associated
The degree of improvements of care services	Best efforts of staff in care service processes, communications, and interactions with patients, and the result of patients' effort to improve their own disease

Source: Lee, D. (2017) 'HEALTHQUAL: a multi-item scale for assessing healthcare service quality', *Service Business*. Springer Berlin Heidelberg, 11(3), p. 502 doi: 10.1007/s11628-016-0317-2.

The HEALTHQUAL measurement scale is applicable both as a tool for internal self-evaluation as well as patient satisfaction assessment. Comparative analysis of data collected could be of great importance to the healthcare institution's administration and medical staff. Although the model encompasses formerly conducted vast academic findings, it's variables are still subject to continuous revision and alterations. The use of HEALTHQUAL allows for quantitative and

qualitative data analysis to identify key points at issue to adjust the measurement system to individual settings. Principally, HEALTHQUAL functions as an objective framework for the purposes of comparative examination of healthcare service quality management across various institutions in different contexts for the sake of constant progress (Lee, 2017).

## Chapter 3. Methodology

### 3.1 Research Design

The author regarded it to be pertinent to incorporate a mixture of inductive and deductive reasoning approaches to this study, keeping in mind that with new empirical data emerging, different assumptions and concepts are possibly developed and verified. According to Snieder and Larner, deductive approach “...follows the path of logic most closely. The reasoning starts with a theory and leads to a new hypothesis. This hypothesis is put to the test by confronting it with observations that either leads to a confirmation or a rejection of the hypothesis” (Snieder and Larner, 2009, p. 16). The deductive approach is generally constricted in its research nature, and, therefore, most commonly is quantitative. The deductive approach allows to analyse the causal correlation between the hypotheses and variables and makes it possible to generalise research findings to a certain degree. Given quantitative research is correlational in terms of its design, meaning that the key focus is on exploration and observation of relationships between the variables, without any interventions on behalf of the researcher. On the other hand, given the feedback some of the participants provided, the author as well follows the inductive reasoning, where “data is collected and from the data, we identify general principles that apply to the subject under study” (McGivern, 2009, p. 84). Qualitative research is utilized to a certain extent in order to shed light on the research case, William Trochim referred to mixed methods approach as follows: “qualitative and quantitative data are intimately related to each other. All quantitative data is based on qualitative judgements; and all qualitative data can be described and manipulated numerically” (Trochim, 2002; Thomas, 2010, p. 130). When approaching a problem from multifaceted perspectives, utilising tools and strategies for blending different sorts of data – conventions of disciplinary boundaries are blurred like never before.

### 3.2 Research Data Sources

Literature review expounded in the previous chapter is an insightful profound research of different academic research papers in the given field, shedding light into this specific area of interest. Arlene Fink observed, that “when doing a research review, you systematically examine all sources and describe and justify what you have done. This enables someone else to reproduce your methods and to determine objectively whether to accept the results of the review” (Fink, 2012, p. 68). Secondary research was carried out via a scrutinized examination

of textbooks, peer-reviewed academic journal articles, official research data, and records of government agencies and organizations.

Primary research is described by Currie as “research that produces data that are only obtainable directly from an original source. In certain types of primary research, the researcher has direct contact with the original source of the data. Primary information is primary data to which meaning has been added; in other words, the data have been analysed, inferences have been drawn from them and, thereby, meaning has been added”(Currie, 2005, p. 89). Primary research aims to collect “raw data” in order to test the present hypothesis and shed some light on the research question.

### 3.3 Methods of Data Collection

The author employed questionnaires as an appropriate instrument of primary data collection conforming to the nature of the given research. Questionnaire research is a “set of carefully designed questions given in exactly the same form to a group of people in order to collect data about some topic(s) in which the researcher is interested”, having a definite purpose of meeting the needs of the research objectives (Burns and Dobson, 1981, p. 425). Partington advised not to be deceived by the fact that the questionnaire is a cost-efficient, fairly quick and easy to use tool (Partington, 2002). Regardless, being the most widespread mean of data collection to date, one should be aware of certain complications, being the low response rate, ambivalence regarding the true participants, and little or no influence over respondent’s understanding of the questions put down (Cooper and Schindler, 2018).

A structured questionnaire is a quantitative method of research, comprising of closed-ended questions and exerting insignificant involvement in the process on behalf of the researcher. The given method allows to reach out to a large number of respondents, as well as it allows to, relatively fast and effortlessly, create, code and analyse data collected. The self-administered questionnaire was recognized to be pertinent to this research in the view that it “has been designed specifically to be completed by a respondent without the intervention of the researcher collecting the data” (Lavrakas, 2008, para. 1). The author incorporates the Likert scale to evaluate underlying core elements – participants’ opinions, perceptions, and attitudes. The given scale was developed in a way, that participants’ cognitive and affective components of their stance are analysed throughout the set of statements on a specific ”single-topic” (Likert, 1932). A Likert-type scale expects the range of a respondents’ perceptions being linear, and, therefore,

is measured on a continuum from strongly agree to strongly disagree, allowing for the neutral option of having no opinion regarding the statement. The questionnaire was translated into the German language which is spoken in the region of the research. The author makes certain that the flow of the entire questionnaire is critical and consistent, consisting of clear statements, as well as, the overall structure being easy and straightforward to understand. Keeping in mind the objectives of the given research, questionnaire statements were designed to collect essential information in order to capture genuine perceptions of the patients. It is important to consider, that the data collected from the Likert scale measurement might be compromised by the social desirability phenomenon, meaning that respondents may avoid saying the truth in order to avoid being judged. Allowing anonymous participation casts out social pressure, thus, eliminating social desirability bias. The study of Paulhus revealed that participants who were required to state their contact information on the questionnaire opted to present themselves in a positive light, unlike other participants who were not required to do so (Paulhus, 1984). A participant can be also subject to central tendency bias, thus, avoiding the most extreme options provided. Such an inclination might mean that a participant either did not form an explicit opinion on the matter or, he/she is keeping that “extreme” feedback for the later statement. Contrary to the central tendency bias, extreme response bias is participants’ disposition to respond in extreme values, which could happen due to cultural aspects, educational background, participant’s interest in the given survey or the wording of the statements itself. Keeping this issue in mind, participants are asked to state their socio-demographic data in order to analyse the context the answers are given in. Last but not least, the acquiescence bias frequently takes place when respondents evaluate a statement positively, in order to avoid hurting anyone’s feelings.

As Polit et al stated, a so-called feasibility study of the questionnaire is a “small scale version(s), or trial run(s), done in preparation for the major study” (Polit and Beck, 2001, p. 467). Pilot testing is designed to identify any potential practical problems as well as to highlight which proposed instruments or methods were too complicated, inappropriate, or any not conformance with the research protocol that may lead to the primary research fail. In the words of De Vaus: “Do not take the risk. Pilot test first” (De Vaus, 1993, p. 54).

The pilot questionnaire was distributed among 5 individuals, not being patients at the selected healthcare institutions. This pilot run was helpful both in the view of analysing the face validity and the subject matter of the questionnaire. The content validity scrutinised participants’

interpretation of the content of the questionnaire, whereas face validity test served to establish the coherent and logical nature of questions and statements of the questionnaire. In response to participants' feedback, the author revised the questionnaire with regards to:

- Time spent filling out the questionnaire.
- Ease of questionnaire comprehension.
- Issues raised for further revision.

The revised questionnaire can be found in Appendix section as Appendix 1 (English version) and Appendix 2 (German version).

Data was collected by disseminating a self-administered questionnaire among the public and the private healthcare institutions in Tyrol state, Austria. The author aimed to collect 40 responses from each hospital by randomly inviting patients in Orthopaedic and Trauma Surgery departments to participate. Patients were asked to evaluate 14 statements on the 5-point Likert-scale reflecting on their experience and perceptions of healthcare services received in the hospital. Moreover, patients had to respond to 3 questions regarding socio-demographic agenda, stating their sex, age, and educational background in order to build a meaningful profile of research participants. The sample size of patients was determined given the circumstantial constraints and approached via random sampling. Given the geographical locations of the hospitals and their condition to remain undisclosed, the filled-out questionnaires were sent back by post in origin.

### 3.4 Methods of Data Analysis

Babbie identified quantification of data as “the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that those observation reflect” (Babbie, Earl, 2000, p. 422). The author acknowledges both univariate and bivariate analysis to be applied while analysing quantitative data. Chisnall described univariate analysis as a process, where a separate variable is analysed along, for example, sample statistic such as the mean (Chisnall, 2004). Individual features coming from making a particular measurement are generally explicitly interrelated, this way tempting researchers to scale down the research area, turning it into monocausal theories; although, such plain reasoning is not rather competent (Gries, 2005). This method will be applied alongside percentages to identify the proportion of the target group being of the same viewpoint. Nonetheless, the author is interested in evaluating both extent of the interrelation of the variables and the strength of the

fractional relationship. The combination of methods was considered appropriate as the “most convenient ways of reading responses in the sample group” (McGivern, 2009, p. 294).

The researcher used IBM SPSS Statistics Data Editor for data analysis (IBM, 2018). SPSS, Statistical Package for the Social Scientists, is a data management and statistical analysis tool, with a rather functional data processing capacity. The trial software program was installed from the official IBM website, for the period of 14 days. The data analysis tool was considered appropriate in the course of given research given that the data entered is saved in a spreadsheet-like tabulation chart, similar to the one in the Microsoft Excel. Provided that the author collected data on the Likert-scale type questionnaire, carrying out descriptive statistical analysis, analysing the correlation of various variables and constructing a graphical depiction of findings is of significant value. The program allows to observe the data entered from two different outlooks. First, the variable viewer allows the editor to specify different elements of the variables computed. Second, the data viewer enables you to view data entered for each variable, i.e. data collected on each of the statements. The advantage of this software lies in the fact that data is easily imported from Microsoft Excel or .csv files. Moreover, it is beneficial for both quantitative and qualitative data analysis. As for limitations, the program might require some time to modify variable definitions in the variable viewer, given that SPSS cannot provide for more than 225 symbols. Output can be printed, as well as saved and exported. Despite the limitations, SPSS was utilised mainly for its comprehensive data management tools, exceptional graphical representation options, a wide variety of statistical models and the ease of getting familiar with the menu driven interface (Babbie *et al.*, 2012).

Frequency and percentage were calculated for socio-demographic data (gender, age, level of education), together with the level of patient satisfaction in each category. Moreover, minimum, maximum, mean and standard deviated were derived from the data collected, as patients' responses were rated in scale. Given the fact that the data collected is ordinal, meaning that it depends on the 5-point ranking of the statements, the researcher refers to nonparametric statistics.

A Likert scale, in the context of given research, consists of 14 statements, which were put together into a single compound score during the data analysis process. The final combined variable provides a quantitative measure of patient satisfaction within private and public healthcare sectors. In order to analyse the Likert-scale data, it is important to keep in mind that a scale from “strongly disagree” to “strongly agree” does not imply the extent of the interval



in-between the values. Given ordinal measurement scale was analysed using SPSS techniques, in particular, following tests were run: mean, in order to analyse central tendency; standard deviation to analyse variability; Spearman's correlation to analyse.

It was acknowledged by Stevens, the forefather of the Stevens' Scale of Measurement, that deriving the mean from the ordinal data can yield worthwhile results (Ary, Jacobs and Razavieh, 2010). The biggest challenge for the researcher is not deriving the mean itself but interpreting it in a meaningful way. Standard deviation allows the researcher to understand how widespread the answers are – identify the deviation from the mean and if it is scattered far and extensive. The given approach is also appealing in a way that the mean, together with the standard deviation, reveal statistical differences that pertain in smaller sample groups.

The Spearman's  $r_s$ , or the Spearman rank-order correlation coefficient, analyses the strength and course of the interdependence of the two variables measured on an ordinal scale. In order to carry out Spearman's correlation test, it is important to make sure the research variables are measured on an ordinal scale, corresponding to the nature of the Likert scale. Moreover, the relationship between the two variables has to be monotonic, meaning that the variables change in value synchronically. Spearman's correlation is not undermined by outliers or abnormal findings in the data. In order to analyse the data, one should keep in mind that the variables must be measured at an ordinal level and consist of two or more categorical groups (Laerd Statistics, 2018).

Following socio-demographic variables were measured in the course of data analysis:

1. Gender was classified as men and women.
2. Age (years) was classified according to 4 age groups:
  - 18 – 25
  - 26 – 49
  - 50 – 64
  - 65 and older
3. Education level was categorized into 4 groups:
  - No high school degree
  - Secondary education
  - Undergraduate
  - Postgraduate

Patient satisfaction was measured according to Likert's five-point scale, where the rating was applied as follows:

- 5 = Strongly Agree
- 4 = Agree
- 3 = Disagree
- 2 = Strongly Disagree
- 1 = No Opinion

For the purposes of the given research analysis, patient satisfaction was classified into three categories, depending on the mean and standard deviation:

- High satisfaction ( $> \text{mean} + 1 \text{ standard deviation}$ )
- Medium satisfaction ( $\text{mean} - 1 \text{ standard deviation to mean} + 1 \text{ standard deviation}$ )
- Low satisfaction ( $< \text{mean} - 1 \text{ standard deviation}$ )

## Chapter 4. Results

The given research was conducted to determine and analyse patient satisfaction with health services provided in the Orthopaedic and Trauma Departments in participating private and public hospitals in Austria. Respective directors of the two hospitals were entrusted for data collection for the period from April 22<sup>nd</sup> till May 23<sup>rd</sup> 2018. Altogether, 39 patients were interviewed in the public hospital, and 30 patients in the private one. One questionnaire collected in the public hospital had to be omitted since the patient provided qualitative feedback on the questionnaire sheet, instead of evaluating the statements provided. Results are presented in a descriptive and tabulated manner in the following sub-sections:

1. Patient satisfaction with healthcare services provided in the public hospital.
2. Patient satisfaction with healthcare services provided in the private hospital.
3. Interdependence between patient satisfaction and socio-demographic variables.
4. Patients' comments and suggestions regarding the healthcare services provided.

Patient satisfaction was assessed based on 14 statements covering various aspects of healthcare service. The level of patient satisfaction was measured on a 5-point Likert scale, ranging from 1 = "No opinion" to 5 = "Strongly Agree". Data collected was classified into 3 levels of patient satisfaction according to the mean score and standard deviation derived. High satisfaction level was attributed to the score above the sum of the mean and 1 standard deviation ( $>4.95$ ), low satisfaction score was attributed to the score below one standard deviation subtracted from the mean ( $<3.74$ ) and medium satisfaction level attributed to the score in-between.

The table below demonstrates average patient satisfaction with regard to each of the 14 statements, distributed in the public and private hospitals respectively.

#	Statement	Average Satisfaction	
		Public Hospital	Private Hospital
<b>Q1</b>	The doctor understands and considers the patient's situation	4.473684	4.433333
<b>Q2</b>	The doctor establishes a close relationship with the patient	4.552632	4.366667
<b>Q3</b>	The doctor conducts a keen examination, attentively listens to the patient, is interested in details, takes notes	4.315789	4.333333

<b>Q4</b>	There is a comfortable environment in the doctor's office, there are no unpleasant odours	4.342105	3.766667
<b>Q5</b>	The doctor has a neat appearance, clean gown, order on the table	4.657895	4.8
<b>Q6</b>	Advanced medical equipment is secured	4.026316	4.266667
<b>Q7</b>	The safe and comfortable environment for patients is provided	4.473684	4.433333
<b>Q8</b>	The patient is confident that the nurses will not make a mistake	4.710526	4.666667
<b>Q9</b>	The doctor takes in patients exactly at the appointed time	4.184211	4.033333
<b>Q10</b>	The doctor does not impose unnecessary tests, procedures, etc	4.026316	4.133333
<b>Q11</b>	No unnecessary medication use is prescribed	4.026316	4.3
<b>Q12</b>	Care services provided are appropriate	4.815789	4.733333
<b>Q13</b>	Medical condition improved as a result of efforts and treatment by the medical staff	4.5	4.533333
<b>Q14</b>	The patient is informed on how to prevent related diseases	3.684211	4.166667
<b>The average level of satisfaction</b>		<b>4.342105</b>	<b>4.354762</b>

*Table 3. Average patient satisfaction with healthcare services provided in the public and private hospitals*

As it can be seen from the data presented in the table above, major differences in patient perceptions were detected in regard to the statements 4 and 14. However, despite varying patients' perceptions on different matters of medical service delivery, average patient satisfaction among both healthcare institutions is almost identical. With this in mind, the author is moving on to an in-depth statement by statement analysis of the findings, with the subsequent correlation with socio-demographic factors.

#### 4.1 Patient Satisfaction With Healthcare Services Provided in the Public Hospital

In order to analyse patient satisfaction with healthcare services provided in the public hospital, frequencies analysis was carried out via SPSS, estimating high, medium and low levels of satisfaction at the value of 15.8%, 71.1%, and 13.2% respectively. The minimum score amounted to 2.5, whereas maximum score was 5.

Satisfaction	Frequency	Percent
High Satisfaction (>4.95)	6	15.8
Medium Satisfaction (4.95 – 3.74)	27	71.1
Low Satisfaction (<3.74)	5	13.2
Total	38	100.0
Minimum = 2.5      Maximum = 5		

*Table 4. Overall patient satisfaction with healthcare services in the Orthopaedic and Trauma Departments in the public hospital.*

These findings illustrate the fact that the majority of the participants in the public hospital were medium satisfied with medical services, however, a few patients gave strong valuations in certain matters, and some even supported their feedback by voluntarily providing qualitative comments.

The distribution and the level of patient satisfaction with healthcare services provided in the public hospital are summarised in the Table 5 below. Patients agreed the most with the fact that care services provided are appropriate, they are confident that the nurses will not make a mistake and that the attending doctor had a neat appearance, clean gown, and order on the table. On the other hand, patients are least satisfied with the way how informed they were on how to prevent diseases and with the state of art of the medical equipment provided. Statements 2, 5, 8 and 12 received no negative evaluations.

#	Statement	Frequency (Percent)		
		High	Medium	Low
<b>Q1</b>	The doctor understands and considers the patient's situation	24 (63.2)	10 (26.3)	4 (10.5)
<b>Q2</b>	The doctor establishes a close relationship with the patient	21 (55.3)	17 (44.7)	-

<b>Q3</b>	The doctor conducts a keen examination, attentively listens to the patient, is interested in details, takes notes	20 (52.6)	14 (36.8)	4 (10.5)
<b>Q4</b>	There is a comfortable environment in the doctor's office, there are no unpleasant odours	22 (57.9)	8 (21.1)	8 (21.1)
<b>Q5</b>	The doctor has a neat appearance, clean gown, order on the table	25 (65.8)	13 (34.2)	-
<b>Q6</b>	Advanced medical equipment is secured	19 (50.0)	10 (26.3)	9 (23.7)
<b>Q7</b>	The safe and comfortable environment for patients is provided	23 (60.5)	12 (31.6)	3 (7.9)
<b>Q8</b>	The patient is confident that the nurses will not make a mistake	27 (71.1)	11 (28.9)	-
<b>Q9</b>	The doctor takes in patients exactly at the appointed time	20 (52.6)	11 (28.9)	7 (18.4)
<b>Q10</b>	The doctor does not impose unnecessary tests, procedures, etc	17 (44.7)	15 (39.5)	6 (15.8)
<b>Q11</b>	No unnecessary medication use is prescribed	19 (50.0)	13 (34.2)	6 (15.8)
<b>Q12</b>	Care services provided are appropriate	31 (81.6)	7 (18.4)	-
<b>Q13</b>	Medical condition improved as a result of efforts and treatment by the medical staff	22 (57.9)	13 (34.2)	3 (7.9)
<b>Q14</b>	The patient is informed on how to prevent related diseases	11 (28.9)	11 (28.9)	16 (42.1)

*Table 5. Patient satisfaction with healthcare services provided in the public hospital by statements.*

Apart from the 14 statements the questionnaire as well encompassed 3 socio-demographic questions asking participants about their gender, age, and education level. Table 6 below shows that male patients constituted 52.6% of the research sample, while female were 47.4%. Patients were distributed into 4 age groups ranging between 18 and 65 and older. While frequency distribution from the age of 26 up to 65 and older is relatively equal, patients at the age of 65 and older slightly prevail. The majority of patients stated their highest level of education being high school (55.3%), 23.7% had either secondary education or an undergraduate degree and 21.1% had a postgraduate degree.

Variable	Frequency (n=38)	Percent
<b>Gender</b>		
Male	20	52.6
Female	18	47.4
<b>Age (years)</b>		
18 – 25	1	2.6
26 – 49	11	28.9
50 – 64	12	31.6
65 and older	14	36.8
<b>Education Level</b>		
High school diploma	21	55.3
Secondary Education	4	10.5
Undergraduate	5	13.2
Postgraduate	8	21.1

*Table 6. Socio-demographic profile of the participants in the public hospital.*

Although the majority of variables are equally distributed among the participant, there is prevalence in the category “education level” present, with 55.3% of patients having high school diploma as the highest degree of education attained.

#### 4.2 Patient Satisfaction With Healthcare Services Provided in the Private Hospital

Analogous frequency analysis was carried out in SPSS to analyse patient satisfaction with healthcare services provided in the private hospital. The highest level of satisfaction was estimated at 23.3%, medium one at 63.3% and the low one at 13.3%. The minimum level of satisfaction scored 3.36 and the maximum scored 5.

Satisfaction	Frequency	Percent
High Satisfaction (>4.95)	7	23.3
Medium Satisfaction (4.95 – 3.74)	19	63.3
Low Satisfaction (<3.74)	4	13.3

Total	30	100.0
Minimum = 3.36	Maximum = 5	

*Table 7. Overall patient satisfaction with healthcare services in the Orthopaedic and Trauma Departments in the private hospital.*

Table 8 below illustrates the distribution of patient satisfaction with healthcare services provided in the private hospital according to 14 statements that participants were asked to evaluate. Patients agreed the most with the fact that the doctor in charge had a neat appearance, clean gown, and order on the table, as well as with the fact that care services provided were appropriate and the patient was confident that the nurses will not make a mistake. Patients were least satisfied with the environment in the doctor's office and presence of unpleasant odours, as well as the fact that the doctor did not take patients at the exactly appointed time and imposed unnecessary tests, procedures, etc. according to individual perceptions. Statements 5, 8 and 12 received no low valuations.

#	Statement	Frequency (Percent)		
		High	Medium	Low
<b>Q1</b>	The doctor understands and considers the patient's situation	17 (56.7)	9 (30.0)	4 (13.3)
<b>Q2</b>	The doctor establishes a close relationship with the patient	15 (50.0)	11 (36.7)	4 (13.3)
<b>Q3</b>	The doctor conducts a keen examination, attentively listens to the patient, is interested in details, takes notes	15 (50.0)	11 (36.7)	4 (13.3)
<b>Q4</b>	There is a comfortable environment in the doctor's office, there are no unpleasant odours	12 (40.0)	4 (13.3)	14 (46.7)
<b>Q5</b>	The doctor has a neat appearance, clean gown, order on the table	24 (80.0)	6 (20.0)	-
<b>Q6</b>	Advanced medical equipment is secured	12 (40.0)	16 (53.3)	2 (6.7)
<b>Q7</b>	The safe and comfortable environment for patients is provided	14 (46.7)	15 (50.0)	1 (3.3)
<b>Q8</b>	The patient is confident that the nurses will not make a mistake	20 (66.7)	10 (33.3)	-



<b>Q9</b>	The doctor takes in patients exactly at the appointed time	13 (43.3)	6 (20.0)	11 (36.7)
<b>Q10</b>	The doctor does not impose unnecessary tests, procedures, etc	12 (40.0)	12 (40.0)	6 (20.0)
<b>Q11</b>	No unnecessary medication use is prescribed	14 (46.7)	12 (40.0)	4 (13.3)
<b>Q12</b>	Care services provided are appropriate	22 (73.3)	8 (26.7)	-
<b>Q13</b>	Medical condition improved as a result of efforts and treatment by the medical staff	17 (56.7)	12 (40.0)	1 (3.3)
<b>Q14</b>	The patient is informed on how to prevent related diseases	14 (46.7)	11 (36.7)	5 (16.7)

*Table 8. Patient satisfaction with healthcare services provided in the private hospital by statements.*

A similar analysis of socio-demographic characteristics was conducted for the patients of the private hospital. Female and male patients were distributed equally, 15 participants respectively. The majority of patients were attributed to the age group 50-64 (33.3%), whereas an equal number of patients were in the age groups 26 – 49 and 65 and older (8% each). Patients with high school diploma prevail (80%), the remaining 20% being attributed to participants with secondary education and postgraduate degree.

<b>Variable</b>	<b>Frequency (n=30)</b>	<b>Percent</b>
<b>Gender</b>		
Male	15	50.0
Female	15	50.0
<b>Age (years)</b>		
18 – 25	4	13.3
26 – 49	8	26.7
50 – 64	10	33.3
65 and older	8	26.7
<b>Education Level</b>		
High school diploma	24	80.0
Secondary education	4	13.3
Undergraduate	-	-
Postgraduate	2	6.7

Table 9. Socio-demographic profile of the participants in the private hospital.

Here, one can notice a similar trend to the one in the public hospital in terms of education level, with the majority of people stating to have a high school diploma (80%).

### 4.3 Interdependence Between Patient Satisfaction and Socio-demographic Variables

The correlation between the socio-demographic variables, namely, gender, age and the education level, was analysed by running Spearman's  $r_s$  test in the SPSS. In order to support the interdependence established, the author carried out the Spearman's correlation test.

#### 4.3.1 Association Established in the Public Hospital

The Table 10 shows that both the female and the male population had an equal proportion of high satisfaction, concluding that association between gender and level of satisfaction among the participants in the public hospital are statistically insignificant. Spearman's rank correlation coefficient identified the negative direction of the relationship between age and satisfaction level as well as education and satisfaction levels. Values between .1 to .29 are considered to be low.

Socio-demographic variable	Satisfaction Level			Spearman's $r_s$
	High	Medium	Low	
<b>Gender</b>				-.051
Male	3 (15.0)	14 (70.0)	3 (15.0)	
Female	3 (16.7)	13 (72.2)	2 (11.1)	
<b>Age (years)</b>				-.181
18 -25	-	1 (100.0)	-	
26 - 49	1 (9.1)	9 (81.8)	1 (9.1)	
50 – 64	1 (8.3)	8 (66.7)	3 (25.0)	
65 and older	4 (28.6)	9 (64.3)	1 (7.1)	
<b>Education Level</b>				-.125
High school diploma	3 (14.3)	14 (66.7)	4 (19.0)	
Secondary education	-	4 (100.0)	-	
Undergraduate	2 (40.0)	3 (60.0)	-	

Postgraduate	1 (12.5)	6 (75.0)	1 (12.5)
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Table 10. Socio-demographic variables associated with the level of satisfaction in the public hospital

#### 4.3.2 Association Established in the Private hospital

Table 11 shows that the male population had a higher proportion of high satisfaction (46.7) than the female group. Spearman's correlation as well identified a strong relationship between the gender and the degree of patient satisfaction ( $>.5$ ). The low relationship was established between the age variable and the level of satisfaction, and statistically insignificant correlation was identified between the education level and satisfaction level.

Socio-demographic variable	Satisfaction Level			Spearman's $r_s$
	High	Medium	Low	
<b>Gender</b>				.617
Male	7 (46.7)	8 (53.3)	-	
Female	-	11 (73.3)	4 (26.7)	
<b>Age (years)</b>				-.100
18 -25	1 (25.0)	2 (50.0)	1 (25.0)	
26 - 49	1 (12.5)	6 (75.0)	1 (12.5)	
50 – 64	3 (30.0)	6 (60.0)	1 (10.0)	
65 and older	2 (25.0)	5 (62.5)	1 (12.5)	
<b>Education Level</b>				.056
High school diploma	6 (25.0)	15 (62.5)	3 (12.5)	
Secondary education	-	3 (75.0)	1 (25.0)	
Undergraduate	-	-	-	
Postgraduate	1 (50.0)	1 (50.0)	-	

Table 11. Socio-demographic variables associated with the level of satisfaction in the private hospital

#### 4.4 Patients' Comments and Suggestions Regarding Healthcare Services Provided

Out of 69 patients, 4 patients in the public hospital (10.3 % of all participants in the public hospital) provided suggestions and comments on the healthcare services provided in the

Orthopaedic and Trauma departments, while no patients in the private hospital did so. Majority of comments provided light on the individually experienced issues and inconvenience. Comments were expressed in the German language, and thus, are translated into English and summarised below:

- Patient #1:
  - No internet in the room!! What is that?
  - Dinner selection is very modest! The order was oftentimes wrong – cheese plate was melted. Better training for the kitchen stuff would be appreciated. Everything else was perfect.
  - Engine noise. Day + night = gets on nerves
- Patient #2:
  - I was communicating with you and got everything I needed.
- Patient #3:
  - The cleanliness in the room (319) is very bad.
  - The behaviour of one (Asian) employee is unacceptable.
  - I have already been in touch with all the responsible supervisors. Thank you!
  - Orthopaedic and Trauma Department specific: please sometimes collect the ice pack in between.
- Patient #4:
  - The operating room is no longer up to date.  
+
  - I can only mention one. Excellent performance. Everybody is very friendly and accommodating. Exceptional image of the entire staff. Both the surgeon and the anesthesiologist have clearly explained me everything.  
–
  - The operating room does not inspire confidence. The staff is heavily segmented. Quite a lot of people are carrying out small specialised tasks. As people of (an undisclosed geographical location) we can be proud of this department. No Wi-Fi.

#### 4.5 Limitations

The given research is carried out with limited resources and time frame thus omitting some of the valuable variables. The author recognises that the legitimacy of the research is progressing in direct relationship with the number of responses collected from both the private and the public hospitals. However, engaging a large sample of patients stroke as being hard to attain due to constraining circumstances. Given that the findings will be drawn from two healthcare institutions, their generalisability is bounded. The ability of causal deduction is limited in the view of the exploratory nature of the research. Moreover, the author could not observe the communication between medical employees and participants with respect to patient's rights. Keeping in mind that the research hypotheses holds that there is stronger patient satisfaction with the private healthcare institution than with the public healthcare institution, the survey was carefully constructed, not to make this hypothesis evident to the participants and not to inadvertently influence them to providing desirable evaluations. The author is not aware of any ethical dilemmas with respect to given research and pledges the anonymity of the questionnaires.

#### 4.6 Ethical Considerations, Confidentiality and Anonymity

Research ethics, as stated by McDaniel and Gates, “involves the application of fundamental ethical principles to a variety of topics involving research” (McDaniel and Gates, 2014; Dudley, 2016, p. 4). Research carried out as a part of the given master thesis complies with the ethical principles of the Management Center Innsbruck and both public and private healthcare institutions taking part in the research. The author considered it to be reasonable to adhere to the ground rules advocated by Mauch and Birch specified as “the questionnaire should be destroyed, returned, or identifying information cut out as soon as there is no further need for it” (Mauch and Birch, 1998, p. 198).

## Chapter 5. Discussion

Data collected within the scope of this research was analysed in terms of 14 statements and 3 socio-demographic variables of the questionnaire distributed among 69 patients in the public and the private hospitals in Austria. As for the methodological concerns, the study was conducted during patients' stay in the hospital, thus, their evaluations might be subject to bias in order to avoid unfavourable treatment in the future. Moreover, the researcher couldn't be present in the hospitals of research due to geographical distances, limited funds to conduct this study and institutions' inclination to stay anonymous. As it was revealed in the literature review, no study of similar nature has been conducted in the recent years, hence, data analysis will shed some light on the current situation and provide grounds for recommendations and further research.

### 5.1 Comparison of Patient Satisfaction Between Public and Private Hospitals

Majority of respondents in both public (71.1%) and private (63.3%) hospitals reported the medium level of satisfaction with healthcare services provided. However, the initial analysis identified minimum satisfaction among participants in the public hospital (2.5) to be 0.86 lower than that of the private hospital (3.36). At the same time, 7.5% more respondents in the private hospital (23.3%) than in the public hospital (15.8%) were classified as being highly satisfied. With this data in mind, the author moves on to rather an in-depth discussion of the frequency analysis conducted on evaluations provided by the patients. With regard to the level of staff quality, namely, a doctor's understanding and consideration of the patient's situation (Q1) and whether a doctor had a neat appearance, clean gown and order on the table (Q5), this study revealed that patients were highly satisfied with the given components in both of the hospitals, revealing only slight differences between the two. In terms of the first statement, 6.5% of patients in the public hospital (63.2%) more than in the private hospital (56.7%) were highly satisfied, whereas, 2.8% more of patients in the private hospital (13.3%) were least satisfied than those in the public one (10.5%). Remarkably, no patient poorly evaluated Q5, the majority reporting a high level of satisfaction, with 14.2% prevalence in the private hospital. These positive findings go in line with the research of Duggirala, Rajendran, and Anantharaman – employees' responsiveness, empathy and professionalism resulted in patients highly evaluating their perception of the total quality service (Duggirala, Rajendran and Anantharaman, 2008).

As a remark in regards to staff conduct, one of the patients condemned a certain employee of an inappropriate behaviour, although, provided no specific details on the case.

Considerably varying levels of satisfaction were reported concerning the communication excellence, that is to say, whether the doctor establishes a close relationship with the patient (Q2) and if the patient was informed on how to prevent related diseases (Q14). In terms of the Q2, more than half of the respondents in the public hospital (55.3%) were highly satisfied and no one provided poor feedback, whereas, in the private hospital numbers look quite different with 13.3% of patients being dissatisfied with the relationship established between them and an attending doctor. The lowest evaluation reported in the public hospital was in regard with the Q14 – 42.1% of the respondents, whereas, patients in the private institution were predominantly satisfied with how informed they were on further disease prevention. As Duggirala et al.'s research showed, not only efficient bilateral exchange but also subsequent follow-up is of crucial importance (Duggirala, Rajendran, and Anantharaman, 2008). Moreover, Kincey et al. supported the idea that informed patients are satisfied more in their study (Kincey, Bradshaw and Ley, 1975). Thus, these findings support the differences and drawbacks identified in section 2.3 when comparing public and private hospitals. Provided the larger number of patients in the public healthcare institutions, there is lack of adequate communication and long-term relationship between a patient and the staff in place. As a result, a significant difference in patient perceptions was reported.

Following statements were grouped by the author as components belonging to doctor care: the doctor conducts a keen examination, attentively listens to the patient, is interested in details, takes notes (Q3), the doctor does not impose unnecessary tests, procedures, etc. (Q10), no unnecessary medication use is prescribed (Q11), care services provided are appropriate (Q12) and medical condition improved as a result of efforts and treatment by the medical staff (Q13). Although patients in both hospitals shared similar views on the statements 3 and 11, participants in the private institution disagreed with the statement 10 to a greater extent. Even though patients observed that the attending doctor was being conscientious and prescribed no unnecessary medication, as Andaleeb predicted, it gets on people undergoing avoidable medical procedures, pouring out not in the most flattering feedback (Andaleeb, 2001). When it comes to the appropriate conduct of care services, no naysaying valuation was expressed, with a high level of satisfaction among the patients of the public hospital prevailing over that of the private hospital by 8.3%. Despite this fact, participants in the public hospital conspicuously

disagreed with the fact that their medical condition improved as a result of efforts and treatment by the medical staff compared to the findings in the private hospital. These findings correlate with Cohen's study, where the researcher argued that any prior positive experience during admission can be cancelled out when encountering inadequate treatment or lack of expertise leading to detrimental or no health-related outcomes (Cohen, 1996).

The author identified the striking difference in terms of patient perception of the doctor's office – whether the environment is comfortable and if no unpleasant odours are pleasant (Q4). When the majority of participants in the public hospital (57.9%) reported having been highly satisfied with the abovementioned statement, whereas, participants in the private hospital reported to be on the opposite extreme, with 46.7% being highly dissatisfied. Although, on the surface, this finding might seem to contradict the discussion in the section 2.3 discussing private and public hospitals, it does correspond with Sung Moon et al.'s observation, stating that positive patient satisfaction is formed when a physical environment is aligned with their expectations (Sung Moon *et al.*, 2011). It is crucial to adequately estimate and differentiate between patient satisfaction when it comes to encounter with health services in the public and private hospitals. As Lovelock stated, expectations can be influenced by various factors, such as marketing, WOM etc. Given that the hospitals preferred to remain anonymous it is hard to form a fair judgement based on their practices. On the other hand, when it comes to infrastructure, 17% of patients in the public hospital more (23.7%) revealed to have been utterly dissatisfied with the state of art of the equipment in place, as compared to only 6.7% in the private hospital (Q6). The author mentioned advanced medical equipment in the literature review as being one of the advantages of the private institutions given their better financial standpoint. The articulated valuation is as well supported by the qualitative feedback provided by the patients in the public hospital. While two patients complained about the lack of Wi-Fi in the rooms, doubts about the state of art of the equipment were as well expressed. Fottler et al. emphasized not only the physical image but also the environment of the healthcare institution, being a crucial part of patient perception formation (Fottler MD, Ford RC and Heaton CP, 2002). Hereof, one patient additionally complained about the poor room soundproofing – irritating sounds of car engines prevented the patient from enjoying rest and peace necessary for smooth recovery. Moreover, another patient criticized the sanitary conditions of the room he/she was admitted to. The larger disproportion of patient satisfaction was revealed in regard to Q7 – whether safe and comfortable environment for patients was provided. Padma et al. emphasized comprehensive safety integration as an essential element of total quality service perception, the one, that 60.5



% of patients in the public hospital regarded as being of high standards, whereas, 46.7/50% of patients in the public institution evaluated as of high and medium satisfaction respectively (Padma, Rajendran and Sai Lokachari, 2010).

Statement 8, asking patients whether they were confident that the nurses will not make a mistake scored no low valuation on neither of the sides, with the majority of patients strongly agreeing in unison. The absence of the negative feedback is in line with Tafreshi et al.'s observation that a competent empathetic nurse can counteract adverse impact of encountering inadequate staff conduct (Tafreshi, Pazargadi and Abed Saeedi, 2007). Last but not least, the patients were asked to evaluate the administrative conduct, in the view of whether the doctor was taking in patients exactly at the appointed time (Q9). 18.3% more of the patients in the private hospital reported low satisfaction on this question than in the public hospital, defying the literature review on the advantages and disadvantages of the two healthcare institutions. One of the patients shared his/her observations on the staff labour division, emphasizing narrow job segmentation preventing the public hospital from smooth operating.

Analysis conducted up to this point provided insightful, and, at times, controversial results. With this in mind, the author suggests to return back to the Table 3 and consider major results, demonstrating average patient satisfaction with healthcare services provided both in the public and the private hospitals. The average patient satisfaction presented statement by statement revealed no major discrepancy between the two institutions, except for statements 4 and 14. In regard to Q4 participants in the public hospital (4.342105) were on average 0.58 points more satisfied than the participants in the private hospital, who on average reported 3.766667 satisfaction level, being only 0.02 points above the category "low satisfaction". Given that the literature review suggests the opposite outcome for the private institution, these findings could be assigned as one of the issues being experienced by this particular hospital only. Moreover, the fact of the anonymity of the hospital and the absence of any qualitative feedback from the patients is greatly limiting the author's ability to generalize this data. The second major variation in the findings was identified for Q14, with patients in the private hospital (4.166667) being 0.48 points more satisfied with them being informed on how to prevent related diseases than patients in the public hospital (3.684211), falling under the category of "low satisfaction". Excellent communication and follow-up have been identified as crucial variables throughout the literature review, constituting patient's total service quality perception (Cohen, 1996; Curtis, 2004; Duggirala, Rajendran, and Anantharaman, 2008; Sung Moon *et al.*, 2011). The

fact that patients reported higher levels of satisfaction in the private clinic conforms with the author's research, in particular with Gapenski, Vogel and Langland-Orban's research findings, showing the private institutions' feasibility to provide personalised care and adequate consultation while being less overwhelmed with patients (Gapenski, Vogel and Langland-Orban, 1993).

All in all, when comparing seemingly distinctive results in the two healthcare institutions, the author noted a remarkable outcome of the total average satisfaction for the public and private hospitals, being 4.342105 and 4.354762 respectively, with the difference of only 0.012657 in-between. On that account, the following question logically comes forth: how come, despite varying feedback and valuations, average patient satisfaction in both hospitals is almost identical? In author's opinion, regardless of differences in hospitals' ownership, funding and its operation, patient satisfaction comes down to one's own expectations. Patient expectation was established to be a legitimate criterion of the total quality service satisfaction and it was as well expressed as a valid determinant by studies discussed in the literature review. When comparing patients' valuation of a certain questionnaire statement, less favourable feedback in the private hospital does not necessarily associate with less adequate medical service delivery or staff conduct, but with higher expectations that patients bring with them. Therefore, it is only natural that a patient, experiencing identical or even slightly more favourable treatment in the private hospital, will evaluate it worse as the patient in the public hospital. Apart from the constitutes of patient expectations mentioned above, it is important to analyse the correlation of patient characteristics with one's own level of satisfaction in relation to the two hospitals being parties to this study.

## 5.2 Interdependence Between Patient Satisfaction and Socio-demographic Variables

First of all, the author conducted a socio-demographic analysis of participants in both public and private hospitals. The frequency of gender distribution among participants was fairly equal in both institutions. When it comes to participants' age, 10.1% more of people being 65 and older attended public hospital rather than private. Besides, distribution of participants of the different educational level was greater in the public hospital, which was justified by the greater number of participants there (38) as compared to the private hospital (30). With that in mind, the author moved on to analysing associations established between socio-demographic variables and patient satisfaction levels between the public and the private hospitals. Patient

gender did not seem to play a significant role among the participants in the public hospital, whereas, stronger correlation (.617) was established in the private hospital. While no male patient expressed low satisfaction, no female patient was highly satisfied with the medical services provided. Although Khayat and Salter did discover in their study that female patients are generally less satisfied with healthcare services and are more inclined to criticise, the author as well takes into account the sample size and feasibly to generalize these findings (Khayat and Salter, 1994). With regard to age, no statistically significant correlation was identified, however, it can be depicted that the older the patient is the higher the level of satisfaction was reported. Given observation stands both in the public and the private healthcare institutions. The reasoning behind this is directly connected to the matter of one's own expectations, and, as the literature review suggests, elderly patients are less likely to actively engage with the attending doctor or have high expectations given the standards and behavioural norms that those people used to conventionally accept, rather than younger and middle-aged people (Cartwright and Anderson, 1981). Frequency distribution of education level in relation to the satisfaction level was statistically insignificant and random, allowing for no general conclusion to be made, albeit, previous studies suggest that the higher the educational attainment is, the lower is the patient's total quality service perception (Wallin *et al.*, 2000).

### 5.3 Summary of the Discussion

In general, patients' valuations and feedback did support previous studies related to patient satisfaction, quality of care and patient characteristics. Poor infrastructure, inadequate communication, and poor doctor care have all been found to relate to patient's dissatisfaction. On the one hand, data analysis identifies differences, at times significant ones, in-patient valuations when comparing the public and the private hospitals. On the other hand, the end average patient satisfaction is almost identical in both institutions. Therefore, the author seeks answers in patient expectations, which constitute one's own mental picture of what is to be expected from the encounter with a certain healthcare institution. Moreover, analysing data in the context of the socio-demographic variables, namely, gender, age, and education level, helped to comprehensively depict the pieces of the puzzle. Although the findings were limited by the sample sizes in both hospitals, it was traced that men and people of older age are generally more satisfied with health services provided, each for their own reasons. Thus, it can be concluded that patient satisfaction is constituted on an individual basis, varying from case to case given the person's background, expectations, circumstances etc.

## Chapter 6. Conclusion and Recommendations

### 6.1 Conclusion

Patient satisfaction is the key indicator representing the quality of the medical services delivery at any organizational level. This research was conducted in certain public and private hospitals, both of them preferred to remain anonymous. The objectives of this thesis encompassed assessing the level of patient satisfaction towards the healthcare services provided in the public and private hospitals, correlate the levels of patient satisfaction with the focal points of the HEALTHQUAL model laid down in the questionnaire, and to compare and critically analyse patient satisfaction between the two institutions. Patient satisfaction in regard to various elements of the total quality service and the association with the socio-demographic variables were studied in separate sections of this paper. The main study instrument, a structured questionnaire, consisted of two sections: 14 statements analysing patient satisfaction on a 5-point Likert scale and 3 questions asking patients on their gender, age and education level. In total, 69 patients were interviewed in the Orthopaedic and Trauma Departments in the period from April 22<sup>nd</sup> till May 23<sup>rd</sup> 2018. The data was analysed by SPSS trial version and data analysis tools in Microsoft Excel. The results were presented by using frequency, percentage, minimum and maximum, mean, standard deviation as well as the Spearman's  $r_s$  coefficient being applied to detect correlations between the findings present, if any. The results revealed that gender distribution was almost equal, however, female patients had a stronger association with a low satisfaction level. The rest of the socio-demographic factors had no statistically significant correlation with patient satisfaction.

All in all, despite differing valuations provided by the patients in the public and the private hospitals, the end average patient satisfaction was identical, which goes in contrary to the standard economic theory. Was does this finding mean for both institutions? In the author's opinion, this contradictory evidence suggests that both healthcare institutions should reconsider their strategy and operations with the idea of their patients' expectations in mind. In regard to the public hospital – patients were mostly dissatisfied with matters related to hospital infrastructure and communication adequacy, supported by their voluntarily provided qualitative feedback. That said, patients were no less satisfied on average with the quality of medical services provided than patients in the private hospital. In regard to the private hospital – patients mostly complained about the comfort of their stay, waiting times and imposition of unnecessary tests and procedures in their perspective. These findings do not necessarily

indicate worse-off performance in the private hospital – it might as well be on par with the public one. However, coming to the private hospital, incurring higher expenses, patients generally expect fast admission to treatment, personalised care, state of art technology and comfortable environment. It turned out that participants in the private hospital poorly evaluated statements on exactly those matters. Therefore, relying on the WOM, marketing strategy, if any, or simply one's own mental picture, patients simply had higher expectations. Thus, the private hospital should have focused not only on the physical aspects, but considered their patients as customers, delivering elevated total quality service in all regards. In the end, advantages and disadvantages of both healthcare institutions balanced themselves off, leaving their patients equally satisfied with their experiences.

## 6.2 Recommendations

### 6.2.1 Recommendations For Action

This thesis leads to a number of recommendations contributing to the improvement of patient satisfaction with total quality service in the Orthopaedic and Trauma Departments in the public and the private hospitals:

1. This study pointed out that patients in both healthcare institutions are less satisfied with the state of art of the technology as well as the infrastructure of the institution in general. The author, therefore, strongly supports the comments provided by the participants, in which the hospitals should improve patients' well-being during admission, as well, the public hospital, in particular, is recommended to advance its technological state, namely, the availability of the Wi-Fi and the condition of the operating room.
2. Interpersonal communication of doctors and medical employees in both hospitals should also be sought to be improved. Employees are recommended to keep a polite and positive attitude, whereas doctors should be rather attentive during consultations, provide more information and engage a patient in a dialogue. It might be helpful to organise patient communication skills course in order to achieve better satisfaction levels in the future.
3. The private hospital should re-evaluate its strategy aimed at patient satisfaction and incorporate patient expectations in it. More emphasis is needed on the intangible aspects of the total quality service rather than material. It is important for the private hospital

to reconsider the image it aims to build, its branding, social responsibility policy and other practices that form certain expectations in a potential patient's mind.

#### 6.2.2 Recommendations For Future Research

1. The author found the comments that some of the participants provided very insightful, and, thus, is of opinion, that quantitative research should go hand in hand with qualitative research. Semi-structured interviews should be conducted, depicting patients' emotions, body language and collecting profound information on one's own experience.
2. Further studies on patient satisfaction need to be conducted on a larger scale, involving more hospitals and bigger sample size, in parallel with studies on patient expectations, which will be useful to understand where a patient is coming from when he/she reports different levels of satisfaction with the same quality service provided in two different healthcare institutions.

## References

- Abramowitz, S., Coté, A. A. and Berry, E. (1987) 'Analyzing patient satisfaction: a multianalytic approach.', *QRB. Quality review bulletin*, 13(4), pp. 122–30. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/3108744> (Accessed: 5 April 2018).
- Andaleeb, S. S. (2001) 'Service quality perceptions and patient satisfaction: a study of hospitals in a developing country', *Social Science & Medicine*. Pergamon, 52(9), pp. 1359–1370. doi: 10.1016/S0277-9536(00)00235-5.
- Anderson, L. A. and Zimmerman, M. A. (1993) 'Patient and physician perceptions of their relationship and patient satisfaction: a study of chronic disease management.', *Patient education and counseling*, 20(1), pp. 27–36. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/8474945> (Accessed: 5 May 2018).
- APHA (2018) *Australian Private Hospitals Association*. Available at: <http://www.apha.org.au/> (Accessed: 19 June 2018).
- Ary, D., Jacobs, L. C. and Razavieh, A. (2010) *Introduction to research in education*. 8th edn. Belmont: Wadsworth Cengage Learning.
- Babakus, E. and Mangold, W. G. (1992) 'Adapting the SERVQUAL scale to hospital services: an empirical investigation.', *Health services research*. Health Research & Educational Trust, 26(6), pp. 767–86. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/1737708> (Accessed: 8 April 2018).
- Babbie, Earl, R. (2000) *The Practice of Social Research*. 9th edn. Belmont: Wadsworth Pub Co. Available at: <https://www.amazon.com/Practice-Social-Research-9th-2000/dp/B000LSJO26> (Accessed: 18 June 2018).
- Babbie, E. *et al.* (2012) *Adventures in Social Research: Data Analysis Using IBM SPSS Statistics*. 8th edn. Newcastle: SAGE Publications. Available at: <https://studysites.sagepub.com/babbie8estudy/main.htm> (Accessed: 17 June 2018).
- Bakan, I., Buyukbese, T. and Ersahan, B. (2014) 'The impact of total quality service (TQS) on healthcare and patient satisfaction: An empirical study of Turkish private and public hospitals', *The International Journal of Health Planning and Management*. Wiley-Blackwell,

29(3), pp. 292–315. doi: 10.1002/hpm.2169.

Basu, A. and Meltzer, D. (2007) ‘Value of Information on Preference Heterogeneity and Individualized Care’, *Medical Decision Making*, 27(2), pp. 112–127. doi: 10.1177/0272989X06297393.

Beckett, D. (1999) ‘From Bonesetters to Orthopaedic Surgeons: A History of the Specialty of Orthopaedics’, *The Surgical Technologies*, pp. 7–10. Available at: [http://www.ast.org/uploadedFiles/Main\\_Site/Content/Members/CE\\_Credit\\_Package\\_4.pdf](http://www.ast.org/uploadedFiles/Main_Site/Content/Members/CE_Credit_Package_4.pdf) (Accessed: 17 June 2018).

Bopp, K. D. (1990) ‘How patients evaluate the quality of ambulatory medical encounters: a marketing perspective.’, *Journal of health care marketing*, 10(1), pp. 6–15. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/10104016> (Accessed: 8 April 2018).

Bundesministerium Fur Gesundheit (2013) *The Austrian Health Care System: Key Facts*. Wien. Available at: [https://www.bmgf.gv.at/cms/home/attachments/3/4/4/CH1066/CMS1291414949078/austrian\\_health\\_care\\_key\\_facts\\_2013.pdf](https://www.bmgf.gv.at/cms/home/attachments/3/4/4/CH1066/CMS1291414949078/austrian_health_care_key_facts_2013.pdf) (Accessed: 18 June 2018).

Bundesministerium Für Gesundheit (2010) *The Austrian Health Care System: Key Facts*. Vienna. Available at: [https://www.bmgf.gv.at/cms/home/attachments/2/7/1/CH1602/CMS1475570873153/the\\_austrian\\_health\\_care\\_system.pdf](https://www.bmgf.gv.at/cms/home/attachments/2/7/1/CH1602/CMS1475570873153/the_austrian_health_care_system.pdf) (Accessed: 21 January 2018).

Carman, J. M. (1990) ‘Consumer perceptions of service quality: An assessment of the SERVQUAL dimensions’, *Journal of Retailing*, 66(1), pp. 33–55. Available at: <http://psycnet.apa.org/record/1990-24205-001> (Accessed: 8 April 2018).

Carr-Hill, R. A. (1992) ‘The measurement of patient satisfaction’, *Journal of Public Health*. Oxford University Press, 14(3), pp. 236–249. doi: 10.1093/oxfordjournals.pubmed.a042739.

Cartwright, A. and Anderson, R. (1981) ‘General Practice Revisited’, *Psychological Medicine*. Cambridge University Press, 11(4), p. 870. doi: 10.1017/S0033291700041726.

Cherkin, D. C. *et al.* (1998) ‘A Comparison of Physical Therapy, Chiropractic Manipulation, and Provision of an Educational Booklet for the Treatment of Patients with Low Back Pain’,



*New England Journal of Medicine*, 339(15), pp. 1021–1029. doi:  
10.1056/NEJM199810083391502.

Chisnall, P. M. (2004) *Marketing research*. New Yprk: McGraw-Hill. Available at:  
[https://books.google.at/books/about/Marketing\\_Research.html?id=H\\_U4ngEACAAJ&redir\\_esc=y](https://books.google.at/books/about/Marketing_Research.html?id=H_U4ngEACAAJ&redir_esc=y) (Accessed: 18 June 2018).

Choi, K. *et al.* (2005) *The service quality dimensions and patient satisfaction relationships in South Korea: comparisons across gender, age and types of service*, *Journal of Services Marketing*. Edited by M. Laroche. Emerald Group Publishing Limited. doi:  
10.1108/08876040510596812.

Chowhan, S. S. (2015) *Marketing of Services*. Jaipur: Nims University. Available at:  
<https://books.google.cz/books?id=m4ncCQAAQBAJ&pg=PA47&lpg=PA47&dq=%22desired+service,+adequate+service,+predicted+service+and+a+zone+of+tolerance+that+falls+between+the+desired+and+adequate+service+levels%22&source=bl&ots=O4Ivol7WWi&sig=oww65uGT8TpqRhyIcS> (Accessed: 4 July 2018).

Cohen, G. (1996) ‘Age and health status in a patient satisfaction survey.’, *Social Science & Medicine* , 42(7), pp. 1085–1093. Available at:  
<http://www.ncbi.nlm.nih.gov/pubmed/8730914> (Accessed: 17 June 2018).

Cooper, D. R. and Schindler, P. S. (2018) *Business research methods*. 12th edn. New-York: McGraw-Hill irwin.

Coulter, A. (2002) ‘The Autonomous Patient: Ending Paternalism in Medical Care’, *TSO*. London.

Countryeconomy (2018) *Austria GDP*. Available at: <https://countryeconomy.com/gdp/austria> (Accessed: 18 June 2018).

Currie, D. (2005) *Developing and applying study skills : writing assignments, dissertations and management reports*. London: Chartered Institute of Personnel and Development.

Curtis, S. (2004) *Health and inequality : geographical perspectives*. London: SAGE Publications.

Czypionka, T. *et al.* (2014) 'Efficiency, ownership, and financing of hospitals: The case of Austria', *Health Care Management Science*, 17(4), pp. 331–347. doi: 10.1007/s10729-013-9256-9.

Dawson, J. *et al.* (2012) 'Factors associated with patient satisfaction with foot and ankle surgery in a large prospective study', *The Foot*, 22(3), pp. 211–218. doi: 10.1016/j.foot.2012.05.002.

Dempsey, C. (2017) *Hospital Impact: For a better patient experience, focus on the outcomes that matter most* / *FierceHealthcare*, *FierceHealthcare*. Available at: <https://www.fiercehealthcare.com/hospitals/hospital-impact-for-a-better-patient-experience-focus-outcomes-matter-most> (Accessed: 3 May 2018).

De Vaus, D. (2001) *Research Design in Social Research*. London: SAGE Publications. Available at: [https://books.google.sk/books?hl=en&lr=&id=9yurQt7T65oC&oi=fnd&pg=PA1&dq=De+Vaus+1993+research+design&ots=npQiY1rR6o&sig=BACU5x81L6uUdFnCWt2mnj403VM&redir\\_esc=y#v=onepage&q=De Vaus 1993 research design&f=false](https://books.google.sk/books?hl=en&lr=&id=9yurQt7T65oC&oi=fnd&pg=PA1&dq=De+Vaus+1993+research+design&ots=npQiY1rR6o&sig=BACU5x81L6uUdFnCWt2mnj403VM&redir_esc=y#v=onepage&q=De+Vaus+1993+research+design&f=false) (Accessed: 11 May 2018).

Di Palo, M. T. (1997) 'Rating Satisfaction Research: Is it Poor, Fair, Good, Very Good, or Excellent?', *Arthritis Care and Research*. Boston: American College of Rheumatology, 10(6), pp. 422–430. Available at: <https://onlinelibrary.wiley.com/doi/pdf/10.1002/art.1790100610> (Accessed: 3 July 2018).

Donabedian, A. (1980) 'Explorations in Quality Assessment and Monitoring—Volume I—The Definition of Quality and Approaches to its Assessment'. Ann Arbor: Health Administration Press, 1.

Donaldson, M. (1999) *Measuring the Quality of Health Care*. Washington, D.C.: National Academies Press. doi: 10.17226/6418.

Doran, D. and Smith, P. (2004) 'Measuring service quality provision within an eating disorders context', *International Journal of Health Care Quality Assurance*. Emerald Group Publishing Limited, 17(7), pp. 377–388. doi: 10.1108/09526860410563186.

- Dudley, J. (2016) *Research Methods for Social Work, Being Producers and Consumers of Research*. 2nd edn. CTI Reviews. Available at:  
<https://books.google.cz/books?id=KuNMZFMXpq4C&pg=PT8&lpg=PT8&dq=%22involves+the+application+of+fundamental+ethical+principles+to+a+variety+of+topics+involving+research%22&source=bl&ots=5BNfr4xnMk&sig=EgttSMJpz8JREX4WjX4jRsdrNw&hl=en&sa=X&ved=0ahUKEwjel-q> (Accessed: 4 July 2018).
- Duggan, M. G. (2000) 'Hospital Ownership and Public Medical Spending', *The Quarterly Journal of Economics*, 115(4), pp. 1343–1373. doi: 10.1162/003355300555097.
- Duggirala, M., Rajendran, C. and Anantharaman, R. N. (2008) 'Patient-perceived dimensions of total quality service in healthcare', *Benchmarking: An International Journal*. Emerald Group Publishing Limited, 15(5), pp. 560–583. doi: 10.1108/14635770810903150.
- Elleuch, A. (2008) 'Patient satisfaction in Japan', *International Journal of Health Care Quality Assurance*. Emerald Group Publishing Limited, 21(7), pp. 692–705. doi: 10.1108/09526860810910168.
- European Commission (2007a) 'Health and long-term care in the European Union', *Special Eurobarometer*, 28. Available at:  
[http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs\\_283\\_en.pdf](http://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_283_en.pdf) (Accessed: 10 April 2018).
- European Commission (2007b) *Public Opinion Analysis - Standard Eurobarometer 68*. Available at:  
[http://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb68/eb68\\_en.htm](http://ec.europa.eu/commfrontoffice/publicopinion/archives/eb/eb68/eb68_en.htm) (Accessed: 28 April 2018).
- Eurostat Statistics Explained (2017) *Healthcare personnel statistics - physicians*. Available at: [http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare\\_personnel\\_statistics\\_-\\_physicians](http://ec.europa.eu/eurostat/statistics-explained/index.php?title=Healthcare_personnel_statistics_-_physicians) (Accessed: 28 April 2018).
- Fink, A. (2010) *Conducting research literature reviews : from the Internet to paper*. SAGE. Available at:  
[https://books.google.at/books/about/Conducting\\_Research\\_Literature\\_Reviews.html?id=2bK](https://books.google.at/books/about/Conducting_Research_Literature_Reviews.html?id=2bK)

I6405TXwC&redir\_esc=y (Accessed: 6 May 2018).

Fitton, F., Acheson, H. W. K. (Harold W. K. and Great Britain. Department of Health and Social Security. (1979) *The doctor/patient relationship: a study in general practice*. H.M. Stationery Off. Available at: <https://catalogue.nla.gov.au/Record/1450784> (Accessed: 5 April 2018).

Fitzpatrick, R. and Hopkins, A. (1983) 'Problems in the conceptual framework of patient satisfaction research: an empirical exploration.', *Sociology of Health and Illness*. Wiley/Blackwell (10.1111), 5(3), pp. 297–311. doi: 10.1111/1467-9566.ep10491836.

Flood, R. L. and Romm, N. R. A. (1996) 'Plurality revisited: Diversity management and triple loop learning', *Systems Practice*. John Wiley, 9(6), pp. 587–603. doi: 10.1007/BF02169215.

Fottler MD, Ford RC and Heaton CP (2002) *Achieving service excellence: Strategic for health*, Health Administration Press. Chicago: IL. Available at: <https://gil8b3fsb01.storage.googleapis.com/MTU2NzkzMTkwMQ==01.pdf> (Accessed: 16 June 2018).

Fox, J. G. and Storms, D. M. (1981) 'A different approach to sociodemographic predictors of satisfaction with health care.', *Social science & medicine. Part A, Medical sociology*, 15(5), pp. 557–64. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/6976620> (Accessed: 16 June 2018).

Gapenski, L., Vogel, B. and Langland-Orban, B. (1993) 'The Determinants of Hospital Profitability', *Hospital & Health Services Administration*, 38(1). Available at: <https://search.proquest.com/openview/0eefc79fae61efbb957537bfb7276cbf/1?pq-origsite=gscholar&cbl=7080> (Accessed: 4 July 2018).

Gesundheit Österreich GmbH (2018) *Gesundheitsberichte*archiv. Available at: <https://goeg.at/Gesundheitsberichte-Archiv> (Accessed: 28 April 2018).

Godil, S. S. *et al.* (2013) 'Determining the quality and effectiveness of surgical spine care: patient satisfaction is not a valid proxy', *The Spine Journal*, 13(9), pp. 1006–1012. doi: 10.1016/j.spinee.2013.04.008.

Gries, S. (2005) 'Syntactic Priming: A Corpus-based Approach', *Journal of Psycholinguistic Research*, 34(4), p. 35. doi: 10.1007/s10936-005-6139-3.

Harris, I. A. *et al.* (2009) 'Predictors of patient and surgeon satisfaction after orthopaedic trauma', *Injury*, 40(4), pp. 377–384. doi: 10.1016/j.injury.2008.08.039.

HCP (2012) *Health Consumer Powerhouse – Health Care System's Indexes and reports*. Available at: <https://healthpowerhouse.com/> (Accessed: 28 April 2018).

Hennig-Thurau, T. (2001) *A Relationship Marketing Perspective of Complaint Satisfaction in Service Settings: Some Empirical Findings*, *Summer Educators Conference Proceedings*. Chicago: American Marketing Association. Available at: [https://www.marketingcenter.de/sites/mcm/files/downloads/research/lmm/literature/hennig-thurau\\_2001\\_ama\\_a\\_relationship\\_marketing\\_perspective\\_of\\_complaint\\_satisfaction\\_in\\_service\\_settings\\_some\\_empirical\\_findings.pdf](https://www.marketingcenter.de/sites/mcm/files/downloads/research/lmm/literature/hennig-thurau_2001_ama_a_relationship_marketing_perspective_of_complaint_satisfaction_in_service_settings_some_empirical_findings.pdf) (Accessed: 16 June 2018).

Hofmarcher, M. M., Paterson, I. and Riedel, M. (2002) 'Measuring Hospital Efficiency in Austria – A DEA Approach', *Health Care Management Science*. Kluwer Academic Publishers, 5(1), pp. 7–14. doi: 10.1023/A:1013292801100.

Hobby, J. L., Venkatesh, R. and Motkur, P. (2005) 'The effect of age and gender upon symptoms and surgical outcomes in carpal tunnel syndrome.', *Journal of hand surgery (Edinburgh, Scotland)*, 30(6), pp. 599–604. doi: 10.1016/j.jhsb.2005.07.005.

Hopton, J. L., Howie, J. G. and Porter, A. M. D. (1993) 'The Need for Another Look at The Patient in General Practice Satisfaction Surveys', *Family Practice*. Oxford University Press, 10(1), pp. 82–87. doi: 10.1093/fampra/10.1.82.

Hoy, E. (2008) 'Measuring patient experiences of care.', *Bulletin of the American College of Surgeons*, 93(5), pp. 13–6. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/18610591> (Accessed: 6 April 2018).

IBM (2018) *IBM SPSS trials, Analytics*. Available at: <https://www.ibm.com/analytics/data-science/predictive-analytics/spss-trials> (Accessed: 8 June 2018).

Irish society for quality and safety in health care (2003) *Measurement of patient satisfaction guidelines: Health Strategy Implementation Project*.

IOM (Institute of Medicine) (2001) *Crossing the Quality Chasm*. Washington, D.C.: National Academies Press. doi: 10.17226/10027.

Irish society for quality and safety in health care (2003) *Measurement of patient satisfaction guidelines: Health Strategy Implementation Project*.

Jankauskiene, D. and Jankauskaite, I. (2011) 'ACCESS AND QUALITY OF HEALTH CARE SYSTEM BY OPINION OF PATIENTS IN TEN EUROPEAN COUNTRIES', *Management in Health*, 15(3). doi: 10.5233/MIH.V15I3.200.

Johansson, P., Oléni, M. and Fridlund, B. (2002) 'Patient satisfaction with nursing care in the context of health care: a literature study.', *Scandinavian journal of caring sciences*, 16(4), pp. 337–44. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/12445102> (Accessed: 21 March 2018).

John, J. (1991) 'Improving Quality Through Patient-Provider Communication', *Journal of Health Care Marketing*, 11(4), pp. 51–60. Available at: <https://search.proquest.com/openview/c4bb71dd2a263d672c6c8fbf8ac2f795/1?pq-origsite=gscholar&cbl=36770> (Accessed: 19 January 2018).

Johnson, M., Anderson, E. and Fornell, C. (1995) 'Rational and Adaptive Performance Expectations in a Customer Satisfaction Framework', *Journal of Consumer Research*, 21(4), pp. 695–707. Available at: <https://scholarship.sha.cornell.edu/articles/430> (Accessed: 21 March 2018).

Kessing, R. M. (1987) "“Models, folk and cultural: paradigms regained?”", *Cultural Models in Language and Thought*. Cambridge: Cambridge University Press, pp. 369–393.

Khayat, K. and Salter, B. (1994) 'Patient satisfaction surveys as a market research tool for general practices.', *The British journal of general practice : the journal of the Royal College of General Practitioners*, 44(382), pp. 215–9. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/8204335> (Accessed: 4 May 2018).

Kincey, J., Bradshaw, P. and Ley, P. (1975) 'Patients' satisfaction and reported acceptance of advice in general practice.', *The Journal of the Royal College of General Practitioners*, 25(157), pp. 558–66. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/1195230> (Accessed:

29 April 2018).

Kornai, J. (2009) 'The soft budget constraint syndrome in the hospital sector', *International Journal of Health Care Finance and Economics*. Springer US, 9(2), pp. 117–135. doi: 10.1007/s10754-009-9064-4.

Kotler, P. and Keller, K. L. (2009) *Marketing Management*. 13th edn. New Jersey: Pearson Education Inc. Available at: [http://socioline.ru/files/5/283/kotler\\_keller\\_-\\_marketing\\_management\\_14th\\_edition.pdf](http://socioline.ru/files/5/283/kotler_keller_-_marketing_management_14th_edition.pdf) (Accessed: 28 March 2018).

Laerd Statistics (2018a) *Chi-Square Test for Association using SPSS Statistics, SPSS Tutorials*. Available at: <https://statistics.laerd.com/spss-tutorials/chi-square-test-for-association-using-spss-statistics.php> (Accessed: 8 June 2018).

Laerd Statistics (2018b) *Spearman's Correlation in Stata, Stata Tutorials*. Available at: <https://statistics.laerd.com/stata-tutorials/spearmans-correlation-using-stata.php> (Accessed: 8 June 2018).

Land, L. and Suhonen, R. (2009) 'Orthopaedic and trauma patients' perceptions of individualized care', *International Nursing Review*. Wiley/Blackwell (10.1111), 56(1), pp. 131–137. doi: 10.1111/j.1466-7657.2008.00688.x.

Lau-Walker, M. (2006) 'A conceptual care model for individualized care approach in cardiac rehabilitation - combining both illness representation and self-efficacy', *British Journal of Health Psychology*, 11(1), pp. 103–117. doi: 10.1348/135910705X41914.

Lavrakas, P. J. (2008) *Encyclopedia of survey research methods*. Thousand Oaks: Sage Publications, Inc. doi: 10.4135/9781412963947.

Lee, D. (2017) 'HEALTHQUAL: a multi-item scale for assessing healthcare service quality', *Service Business*. Springer Berlin Heidelberg, 11(3), pp. 491–516. doi: 10.1007/s11628-016-0317-2.

Lee, D. and Kim, K. K. (2017) 'Assessing healthcare service quality: a comparative study of patient treatment types', *International Journal of Quality Innovation*. Nature Publishing Group, 3(1), p. 15. doi: 10.1186/s40887-016-0010-5.

Lee, S. M., Lee, D. and Kang, C.-Y. (2011) 'The impact of high-performance work systems in the health-care industry: employee reactions, service quality, customer satisfaction, and customer loyalty', *The Service Industries Journal*. Routledge, 32(1), pp. 17–36. doi: 10.1080/02642069.2010.545397.

Leebov, W. and Jean, C. (2003) *The Health Care Manager's Guide to Continuous Quality Improvement*. Lincoln: iUniverse. Available at: <https://www.bookdepository.com/Health-Care-Managers-Guide-Continuous-Quality-Improvement-Wendy-Leebov/9780595283668> (Accessed: 21 January 2018).

Levois, M., Nguyen, T. D. and Attkisson, C. C. (1981) 'ARTIFACT IN CLIENT SATISFACTION ASSESSMENT Experience in Community Mental Health Settings', *Evaluation and Program Planning*, 4, pp. 139–150. Available at: [https://ac.els-cdn.com/0149718981900045/1-s2.0-0149718981900045-main.pdf?\\_tid=c393b72f-bbc8-4766-a952-818c918e497b&acdnat=1525512312\\_d585ca7baafbd2ff29886a13928167e1](https://ac.els-cdn.com/0149718981900045/1-s2.0-0149718981900045-main.pdf?_tid=c393b72f-bbc8-4766-a952-818c918e497b&acdnat=1525512312_d585ca7baafbd2ff29886a13928167e1) (Accessed: 5 May 2018).

Ley, P. (1982) 'Satisfaction, compliance and communication', *British Journal of Clinical Psychology*. Wiley/Blackwell (10.1111), 21(4), pp. 241–254. doi: 10.1111/j.2044-8260.1982.tb00562.x.

Likert, R. (1932) 'A technique for the measurement of attitudes', *Archives of Psychology*, 22(140), p. 55. Available at: <http://psycnet.apa.org/record/1933-01885-001> (Accessed: 7 June 2018).

Linder-Pelz, S. (1982) 'Toward a theory of patient satisfaction', *Social Science & Medicine*. Pergamon, 16(5), pp. 577–582. doi: 10.1016/0277-9536(82)90311-2.

Lino, M. *et al.* (2009) 'Dimensions of service quality and satisfaction in healthcare: a patient's satisfaction index', *Service Business*, 3, pp. 85–100. doi: 10.1007/s11628-008-0055-1.

Listl, S. (2011) 'Income-related Inequalities in Dental Service Utilization by Europeans Aged 50+', *Journal of Dental Research*, 90(6), pp. 717–723. doi: 10.1177/0022034511399907.

Locker, D. and Dunt, D. (1978) 'Theoretical and methodological issues in sociological



studies of consumer satisfaction with medical care.’, *Social science & medicine*, 12(4A), pp. 283–92. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/675282> (Accessed: 5 April 2018).

Lohr K. N. (1990) ‘Medicare: A Strategy for Quality Assurance’, *National Academy Press*. Washington, D.C.: National Academy Press, 1, pp. 1–427. doi: 10.17226/1547.

Lovelock, C. H. (2011) *Services marketing : people, technology, strategy*. 7th edn. Edited by J. Wirts. New Jersey : Prentice Hall.

Marks, M. *et al.* (2011) ‘Determinants of Patient Satisfaction After Orthopedic Interventions to the Hand: A Review of the Literature’, *Journal of Hand Therapy*, 24(4), p. 303–312.e10. doi: 10.1016/j.jht.2011.04.004.

Mauch, J. E. and Birch, J. W. (1998) *Guide to the successful thesis and dissertation : a handbook for students and faculty*. M. Dekker.

McDaniel, C. and Gates, R. H. (2014) *Marketing research*. 10th edn. New Jersey: Wiley. Available at: <https://www.wiley.com/en-us/Marketing+Research%2C+10th+Edition-p-9781118808849> (Accessed: 6 May 2018).

McGivern, Y. (2009) *The practice of market research : an introduction*. 3rd edn. Essex: Pearson Education Limited. Available at: [https://books.google.at/books/about/The\\_Practice\\_of\\_Market\\_Research.html?id=vdR-cOvKOSEC&redir\\_esc=y](https://books.google.at/books/about/The_Practice_of_Market_Research.html?id=vdR-cOvKOSEC&redir_esc=y) (Accessed: 18 June 2018).

McGregor, A. H., Doré, C. J. and Morris, T. P. (2013) ‘An exploration of patients’ expectation of and satisfaction with surgical outcome.’, *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*. Springer, 22(12), pp. 2836–44. doi: 10.1007/s00586-013-2971-6.

McLean, G. N. and DeMars, S. K. (2006) ‘Organization development: Principles, process, performance’, *Performance Improvement*. Wiley Periodicals, Inc., A Wiley Company, 45(8), pp. 41–43. doi: 10.1002/pfi.4930450809.

Medical Dictionary (2018a) *Private hospital*. Available at: <https://medical->

dictionary.thefreedictionary.com/private+hospital (Accessed: 17 June 2018).

Medical Dictionary (2018b) *Public hospital*. Available at: <https://medical-dictionary.thefreedictionary.com/public+hospital> (Accessed: 17 June 2018).

Meyer, B. C. and Bishop, D. S. (2007) 'Florence Nightingale: nineteenth century apostle of quality', *Journal of Management History*. *Journal of Management History*, 13(3), pp. 240–254. doi: 10.1108/17511340710754699.

Morris, B. J. *et al.* (2014) 'Improving Patient Satisfaction in the Orthopaedic Trauma Population', *Journal of Orthopaedic Trauma*, 28(4), pp. e80–e84. doi: 10.1097/01.bot.0000435604.75873.ba.

Mowen, J. C., Licata, J. W. and McPhail, J. (1993) 'Waiting in the emergency room: how to improve patient satisfaction.', *Journal of health care marketing*, 13(2), pp. 26–33. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/10127062> (Accessed: 21 March 2018).

O'Neill, L. *et al.* (2008) 'A cross-national comparison and taxonomy of DEA-based hospital efficiency studies', *Socio-Economic Planning Sciences*. Elsevier, 42(3), pp. 158–189. Available at: <https://ideas.repec.org/a/eee/soceps/v42y2008i3p158-189.html> (Accessed: 4 July 2018).

OECD.Stat (2018) *Health Care Resources: Hospital beds*. Available at: [http://stats.oecd.org/index.aspx?DataSetCode=HEALTH\\_REAC#](http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_REAC#) (Accessed: 10 April 2018).

OECD (2010) *Medical Technologies: CT Scanners and MRI Units*, *OECD/European Union, Health at a Glance*. Paris: OECD publishing.

OECD (2018) *Health Status, Health Status*. Available at: [https://stats.oecd.org/index.aspx?DataSetCode=HEALTH\\_STAT](https://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT) (Accessed: 4 July 2018).

Oliver, R. L. (1980) 'A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions', *Source Journal of Marketing Research*, 17(4), pp. 460–469. Available at: <http://www.jstor.org/stable/3150499> (Accessed: 21 March 2018).

Österreichische Sozialversicherung (2015) *The Organisation of Austrian Social Security*. Available at:

<https://www.sozialversicherung.at/portal27/esvportal/content?contentid=10007.754316&viewmode=content> (Accessed: 28 April 2018).

Osterreichisches Rotes Kreuz (2018) *Rotes Kreuz: Austrian Red Cross*. Available at: <https://www.rotekreuz.at/i18n/en> (Accessed: 10 April 2018).

Owusu-Frimpong, N., Nwankwo, S. and Dason, B. (2010) 'Measuring service quality and patient satisfaction with access to public and private healthcare delivery', *International Journal of Public Sector Management*. Emerald Group Publishing Limited, 23(3), pp. 203–220. doi: 10.1108/09513551011032455.

Padma, P., Rajendran, C. and Sai Lokachari, P. (2010) 'Service quality and its impact on customer satisfaction in Indian hospitals', *Benchmarking: An International Journal*. Emerald Group Publishing Limited, 17(6), pp. 807–841. doi: 10.1108/14635771011089746.

Parasuraman, A. *et al.* (1994) 'Reassessment of expectations as a comparison standard in measuring service quality: implications for further research', *JOURNAL OF MARKETING*, 58. Available at: <http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.527.6404> (Accessed: 8 April 2018).

Parasuraman, Zeithaml, V. and Berry, L. (1988) 'SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality', *Journal of Retailing*, 64(1), pp. 12–40.

Partington, D. (2002) *Essential Skills for Management Research*. London: SAGE Publications Ltd. doi: 10.4135/9781848605305.

Paulhus, D. L. (1984) 'Two-component models of socially desirable responding.', *Journal of Personality and Social Psychology*, 46(3), pp. 598–609. doi: 10.1037/0022-3514.46.3.598.

Peck, B. M. (2011) 'Age-related differences in doctor-patient interaction and patient satisfaction.', *Current gerontology and geriatrics research*. Hindawi Limited, 2011, p. 137492. doi: 10.1155/2011/137492.

Peyrot, M., Cooper, P. D. and Schnapf, D. (1993) 'Consumer satisfaction and perceived quality of outpatient health services.', *Journal of health care marketing*, 13(1), pp. 24–33. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/10126027> (Accessed: 21 March 2018).

Picard, A. (2017) *Doctors' pay: a glimpse of the big picture*, *The Globe and Mail*. Available at: <https://www.theglobeandmail.com/life/doctors-pay-a-glimpse-of-the-big-picture/article1147471/> (Accessed: 10 April 2018).

Polit, D. and Beck, C. T. (2018) *Essentials of nursing research : appraising evidence for nursing practice*. 9th edn. Philadelphia: Wolters Kluwer Health. Available at: <https://www.ncbi.nlm.nih.gov/nlmcatalog/101693058> (Accessed: 11 May 2018).

Pölluste, K., Kalda, R. and Lember, M. (2000) 'Primary health care system in transition: the patient's experience', *Journal of the International Society for Quality in Health Care*, 12(6), pp. 503–509. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/11202604> (Accessed: 17 June 2018).

Prakash, B. (2010) 'Patient satisfaction.', *Journal of cutaneous and aesthetic surgery*. Medknow Publications and Media Pvt. Ltd., 3(3), pp. 151–5. doi: 10.4103/0974-2077.74491.

Reicheld, F. and Sasser, E. (1990) 'Zero Defections: Quality Comes to Services', *Harvard Business Review*, 68, pp. 105–111. Available at: <https://hbr.org/1990/09/zero-defections-quality-comes-to-services> (Accessed: 16 June 2018).

Rohini, R. and Mahadevappa, B. (2010) 'Social responsibility of hospitals: an Indian context', *Social Responsibility Journal*. Emerald Group Publishing Limited, 6(2), pp. 268–285. doi: 10.1108/17471111011051766.

Säilä, T. *et al.* (2008) 'Measuring patient assessments of the quality of outpatient care: a systematic review', *Journal of Evaluation in Clinical Practice*. Wiley/Blackwell (10.1111), 14(1), pp. 148–154. doi: 10.1111/j.1365-2753.2007.00824.x.

Scobie, S. *et al.* (2006) 'Measurement of the safety and quality of health care', *The Medical Journal of Australia*, 184(10), pp. S51–S55. Available at: <https://www.mja.com.au/journal/2006/184/10/measurement-safety-and-quality-health-care> (Accessed: 9 April 2018).

Shelton, P. J. (2000) *Measuring and improving patient satisfaction*. Aspen Publishers.

Shen, Y.-C. *et al.* (2005) 'Hospital Ownership and Financial Performance: A Quantitative Research Review', *NBER*, (11662), p. 53. Available at:

<http://studyres.com/doc/21851653/hospital-ownership-and-financial-performance--a-quantitative> (Accessed: 4 July 2018).

Shirley, E. D. and Sanders, J. O. (2013) 'Patient Satisfaction: Implications and Predictors of Success', *The Journal of Bone and Joint Surgery-American Volume*, 95(10), pp. e69-1-4. doi: 10.2106/JBJS.L.01048.

Snieder, R. and Lerner, K. L. (2009) *The art of being a scientist : a guide for graduate students and their mentors*. Cambridge: Cambridge University Press.

Soroceanu, A. *et al.* (2012) 'Relationship Between Preoperative Expectations, Satisfaction, and Functional Outcomes in Patients Undergoing Lumbar and Cervical Spine Surgery', *Spine*, 37(2), pp. E103-E108. doi: 10.1097/BRS.0b013e3182245c1f.

Stimson, G. and Webb, B. (1975) 'Going to see the doctor: the consultation process in general practice', *Routledge and Kegan Paul*. London.

Strong, P. M. and Dingwall, R. (1979) *The Ceremonial Order of the Clinic*. London: Routledge. doi: 10.4324/9781315186504.

Suhonen, R. *et al.* (2010) 'Nurses' perceptions of individualized care', *Journal of Advanced Nursing*. Wiley/Blackwell (10.1111), 66(5), pp. 1035-1046. doi: 10.1111/j.1365-2648.2009.05256.x.

Sung Moon, K. *et al.* (2011) 'The influence of consumer's event quality perception on destination image', *Managing Service Quality: An International Journal*. Emerald Group Publishing Limited, 21(3), pp. 287-303. doi: 10.1108/09604521111127974.

Tafreshi, M. Z., Pazargadi, M. and Abed Saeedi, Z. (2007) 'Nurses' perspectives on quality of nursing care: a qualitative study in Iran', *International Journal of Health Care Quality Assurance*. Emerald Group Publishing Limited, 20(4), pp. 320-328. doi: 10.1108/09526860710754389.

Taylor, S. A. and Cronin, J. J. (1994) 'Modeling patient satisfaction and service quality.', *Journal of health care marketing*, 14(1), pp. 34-44. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/10134042> (Accessed: 21 March 2018).

Thomas, D. (2010) *Analysis of Senior Management Teams that Have Demonstrated a Proclivity for Growth*, Lulu.com. Available at:  
[https://books.google.cz/books?id=tLUeAgAAQBAJ&pg=PA131&lpg=PA131&dq=%22qualitative+and+quantitative+data+are+intimately+related+to+each+other%22&source=bl&ots=tmlj2HKwxN&sig=X5J9EjMhK6BHRmZwsJ1zsPJAc-k&hl=en&sa=X&ved=0ahUKEwjGt\\_\\_E6IPcAhVEJIAKHULqAFYQ6AEIY](https://books.google.cz/books?id=tLUeAgAAQBAJ&pg=PA131&lpg=PA131&dq=%22qualitative+and+quantitative+data+are+intimately+related+to+each+other%22&source=bl&ots=tmlj2HKwxN&sig=X5J9EjMhK6BHRmZwsJ1zsPJAc-k&hl=en&sa=X&ved=0ahUKEwjGt__E6IPcAhVEJIAKHULqAFYQ6AEIY) (Accessed: 3 July 2018).

Trochim, W. (2002) 'What is the Research Methods Knowledge Base ? Using the KB in a Course About the Author', *Research Methods Knowledge Base*, (November), p. 35.

Tse, D. K. and Wilton, P. C. (1988) 'Models of Consumer Satisfaction Formation: An Extension', *Journal of Marketing Research*. American Marketing Association, 25(2), pp. 204–212. doi: 10.2307/3172652.

UNDP (2016) 'Human Development for Everyone. Briefing note for countries on the 2016 Human Development Report. Azerbaijan', *Human Development Report 2016*, p. 8. Available at: [http://hdr.undp.org/sites/all/themes/hdr\\_theme/country-notes/AZE.pdf](http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/AZE.pdf) (Accessed: 29 May 2018).

Vuori, H. V. (1982) *Quality assurance of health services: concepts and methodology.*, World Health Organization, Regional Office for Europe. Copenhagen. Available at:  
<https://www.cabdirect.org/cabdirect/abstract/19832701462> (Accessed: 28 March 2018).

Wallin, E. *et al.* (2000) 'Does age, gender or educational background effect patient satisfaction with short stay surgery?', *Ambulatory Surgery*. No longer published by Elsevier, 8(2), pp. 79–88. doi: 10.1016/S0966-6532(99)00039-6.

Ware, J. E. *et al.* (1983) 'Defining and measuring patient satisfaction with medical care.', *Evaluation and program planning*, 6(3–4), pp. 247–63. Available at:  
<http://www.ncbi.nlm.nih.gov/pubmed/10267253> (Accessed: 16 June 2018).

White, K. R. and Ozcan, Y. A. (1996) 'Church ownership and hospital efficiency.', *Hospital & health services administration*, 41(3), pp. 297–310. Available at:  
<http://www.ncbi.nlm.nih.gov/pubmed/10159993> (Accessed: 4 July 2018).

Williams, B. (1994) 'Patient satisfaction: a valid concept?', *Social science & medicine* (1982), 38(4), pp. 509–16. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/8184314> (Accessed: 5 May 2018).

Williams, G. *et al.* (2011) 'Improving Parental Satisfaction in Pediatric Orthopaedics', *Journal of Pediatric Orthopaedics*, 31(5), pp. 610–615. doi: 10.1097/BPO.0b013e3182203955.

Wilson, A. *et al.* (2016) *Services marketing : integrating customer focus across the firm*. 3rd edn. UK: McGraw Hill.

Worldometers (2018) *Austria Population*. Available at: <https://www.worldometers.info/world-population/austria-population/> (Accessed: 18 June 2018).

Wysong, P. R. and Driver, E. (2009) 'Patients' Perceptions of Nurses' Skill', *Critical Care Nurse*, 29(4), pp. 24–37. doi: 10.4037/ccn2009241.

Zeithaml, V., Parasuraman, A. and Berry, L. (1996) *Delivering quality service balancing customer perceptions and expectations*, New York Free Press. New York: Free Press (Macmillan). Available at: [https://trove.nla.gov.au/work/6133167?q&sort=holdings+desc&\\_=1529166745359&versionId=180792764](https://trove.nla.gov.au/work/6133167?q&sort=holdings+desc&_=1529166745359&versionId=180792764) (Accessed: 16 June 2018).

Zineldin, M. (2006) 'The quality of health care and patient satisfaction', *International Journal of Health Care Quality Assurance*. Emerald Group Publishing Limited, 19(1), pp. 60–92. doi: 10.1108/09526860610642609.

## Appendices

### Appendix 1. Questionnaire – English Version

# PATIENT SATISFACTION SURVEY

Gender: ☐ male ☐ female

Age: ☐ 18-25 ☐ 26-49 ☐ 50-64 ☐ 65 and older

Education Level: ☐ High school diploma ☐ Undergraduate  
☐ Secondary education ☐ Postgraduate

*Please evaluate the following statements*

	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
<i>The doctor understands and considers the patient's situation</i>					
<i>The doctor establishes a close relationship with the patient</i>					
<i>The doctor conducts a keen examination, attentively listens to the patient, is interested in details, takes notes</i>					
<i>There is a comfortable environment in the doctor's office, there are no unpleasant odours</i>					
<i>The doctor has a neat appearance, clean gown, order on the table</i>					
<i>Advanced medical equipment is secured</i>					
<i>Safe and comfortable environment for patients is provided</i>					
<i>The patient is confident that the nurses will not make a mistake</i>					
<i>The doctor takes in patients exactly at the appointed time</i>					
<i>The doctor does not impose unnecessary tests, procedures, etc</i>					
<i>No unnecessary medication use is prescribed</i>					
<i>Care services provided are appropriate</i>					
<i>Medical condition improved as a result of efforts and treatment by the medical staff</i>					
<i>Patient is informed on how to prevent related diseases</i>					



## Appendix 2. Questionnaire – German Version

### UMFRAGE ZUR PATIENTENZUFRIEDENHEIT

*Bitte bewerten Sie folgende Aussagen (kreuzen Sie an)*

	Ich stimme stark zu	Ich stimme zu	Ich stimme weniger zu	Ich stimme nicht zu	Ich weiß nicht
Das medizinische Personal versteht und berücksichtigt meine Situation					
Das Pflegepersonal stellt eine enge Beziehung zu mir her					
Das medizinische Personal führt eine genaue Untersuchung durch, hört mir Aufmerksam zu, interessiert sich für Details, macht sich Notizen					
Das Ambiente ist angenehm, zum Beispiel gibt es keine unangenehmen Gerüche					
Das medizinische Personal hat eine gepflegte Erscheinung und eine saubere Dienstkleidung					
Moderne medizinische Technologie ist verfügbar					
Ich befinde mich in einem angenehmen Ambiente das auch Sicherheit ausstrahlt					
Ich bin zuversichtlich, dass das Pflegepersonal keine Fehler macht					
Meine Termine im Krankenhaus werden pünktlich wahrgenommen					
Ich habe das Gefühl dass das medizinische Personal keine unnötige Tests oder Verfahren durchführt					
Ich habe das Gefühl dass mir keine unnötige Medikamente verschrieben werden					
Die Qualität des Pflegedienstes ist gut					
Mein Gesundheitszustand verbesserte sich infolge der Bemühungen und der Behandlung des medizinischen Personals					
Ich werde informiert, wie ich mit meiner Krankheit verbundene Krankheiten verhindern kann					

Geschlecht: ☐ Männlich ☐ Weiblich  
 Alter: ☐ 18-25 ☐ 26-49 ☐ 50-64 ☐ 65 und älter  
 Ausbildung: ☐ Hauptschule / neue Mittelschule ☐ Bachelor-Abschluss  
☐ Matura ☐ Akademischer Grad Master oder Doktor