Research Article

DEVELOPMENT OF AN ASSESSMENT TOOL FOR REHABILITATION SERVICE QUALITY: AN APPLICATION TO THE REHABILITATION SECTORIN LATVIA

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ABSTRACT

The study aims to develop and test theoretically and empirically justified method for evaluation of the patients' satisfaction with service in rehabilitation institutions. The research uses the mixed methodology and is composed of qualitative and quantitative parts: in-depths interviews with rehabilitations specialists and patients, pilot study, expert evaluation and application of the developed questionnaire through a survey of rehabilitation patients. As concluded, the developed tool is a suitable approach for measuring patients' satisfaction since it demonstrates acceptable reliability. The general environment where the rehabilitation takes place alongside with staff responsiveness has the highest impact on overall satisfaction.

INTRODUCTION

Perquisites for improving quality of life in society as a whole in a certain country include creating a strong health care system (Senic and Marinkovic, 2013). Health care environment is becoming more consumer focused, hence, consumer measures such as patient satisfaction with services are now important indicators in health care. Patient loyalty and new patients inflow mainly results from achieving high patient satisfaction. Generating satisfaction among patients becomes significantly important in rehabilitation medicine, which is medical speciality where patient is actively involved in the treatment process. Specialists in rehabilitation medicine and patients have to work together as a team to reach the goals established at the beginning of the treatment. Do patients get what they expected? Do team members give appropriate information? Are patients satisfied with rehabilitation service? All these factors are important and healthcare marketing has certain specifics. In the standard marketing models, needs come before wants, but in health care, this sequence is not obvious. Patients may not need what they want (one more examination) or not want what they need (a healthier lifestyle). Patients may expect what cannot be provided or ignore what is available (Lillrank, *et al.*, 2010). Moreover, patients are often reluctant, scared, and confused and have difficulty articulating their needs.

Latvia has been constantly reforming its health service system for over two decades. After independence in 1991, Latvia initially aimed to create a social health insurance type system. However, problems with decentralized planning as well as fragmented and inefficient financing led this to being gradually reversed, and ultimately the establishment of a National Health Service type system in 2011. These constant changes have taken place against a backdrop of relatively poor health and limited funding with a heavy burden for individuals. Latvia has one of the highest rates of out-of-pocket expenditure on health in the European Union. The unsatisfactory health status of the Latvian population, as well as the overall dissatisfaction with the health system, underlines the problem of health service quality. According to the Eurobarometer survey in 2011, most Latvians rated health care provision in their country as bad (66%), whereas only 30% judged it as good, thus earning Latvia the fourth lowest rank among EU countries. Currently, there is no comprehensive health service quality management system that encompasses reliable quality indicators and mechanisms for monitoring and continuous quality improvement (Mitenbergs, *et al.*, 2012). The methodology for service quality measurement needs to be developed.

The Latvian rehabilitation medicine sector, as well as other sectors, need to increase the level of service quality. To achieve

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this goal, there is a need for an instrument that could measure rehabilitation service quality and reveal gaps in various dimensions important for the customers. This instrument should be tested in the rehabilitation service market and be applicable to various organisations providing rehabilitation services. According to the above stated, the *aim of this research* is to develop and test a theoretically justified method for the evaluation of the patients' satisfaction with rehabilitation institutions' provided services.

The paper is structured as follows. First theoretical review on service quality, patient satisfaction studies and literature linking patient satisfaction and service quality is presented and specifics of health care sector and rehabilitation services are discussed. Further researches applying SERVQUAL scale dimensions in health care in period between 2009. and 2014. are analysed. The empirical part of the research is composed of two stages. The first phase aims to develop the model and questionnaire through a secondary data gathering process, qualitative interviews with experts and Latvian patients and conduct a pilot study. The second stage is a full-fledged quantitative survey to test and verify the model and the customer satisfaction measurement scale developed for the rehabilitation institutions.

Service Quality and Patient Satisfaction in Health Care

Experts have struggled for decades to formulate a concise, meaningful, and generally applicable definition of the quality of health care (Rivers and Glover, 2008). The quality of health care is defined as "the production of improved health and satisfaction of a population within the constraints of existing technology, resources, and consumer circumstances" (Palmer *et al*. 1991). Thus health care quality is closely related to concepts of satisfaction with health care. Ware *et al*. (1977) proposed that patient satisfaction should be a multidimensional concept. These dimensions include "the art of care", which focuses on the personality attributes of the health provider; "technical competence", or the patient's perception of the provider's knowledge and expertise; "the physical environment" as perceived by the patient; and "efficacy of care", or the client's perception of outcome. Similarly Naidu (2009) suggests that patient satisfaction is a multi-dimensional healthcare construct affected by many variables.

Gaining a better understanding of factors impacting patient satisfaction has recently become a critical concern in healthcare management (Senič and Marinkovič, 2013). Donabedian (1980) noted that client/patient satisfaction is not only an important component of the quality of care, but also a heavy contributor to the definition of quality from the perspective of clients' values and expectations. He developed structure, process, outcome model that included environmental and patient characteristics. Satisfaction could be seen as an objective of care and thus linked to psychological health or a contributor to outcomes.

Satisfaction with rehabilitation service

Many studies in rehabilitation focus on relationship between satisfaction, functional status and outcome. Functional Independence measure (FIM), Health Survey version 2 (SF-36), Berg Balance Scale (BBS), Bartel Index-are the scales more frequently used in rehabilitation to measure outcomes (Chang, 2005; Taylor, *et al*., 2011; Lin *et al*., 2014). Monnin and Perneger (2002) argue that physical therapy has several characteristics that may influence patient satisfaction: the interaction often takes longer contact; therapy usually may cause pain and may be perceived as physically threatening. Study findings approved hypothesis that physical therapy would require a specific instrument. Similarly Chang (2005) focused on relationship between satisfaction and functional status and noted that this dimension is particularly important in medical rehabilitation where patients with physical and psychological impairments strive for maximum independence and better quality of life. Taylor (2011) measured medical outcomes as elements of quality of life, functional independence measure and patient satisfaction.

Many studies have considered patient-therapist interaction as one of the most important factors. If patients are satisfied with clinician-patient interactions, they are likely to be more compliant with their treatment plan, to understand their role in the recovery process, and to follow through with the recommended treatment (Cowing, *et al*., 2009). Assem and Dilewiczh (2014) examined the doctor-patient relationship from the patient's perspective. He reports on detailed comparisons between high and low patient satisfaction groups and their perceptions of their doctors' trustworthiness, practice orientation and performance, and the implications for practice. The overall pattern which emerged is that those who are most satisfied perceive their doctors to be more trustworthy, indicated a greater preference for the "sharing" orientation of their doctors' practice orientation and rated their doctors' performance higher on every item of the scale than did the low satisfaction group. This would suggest that these factors most probably influence patient satisfaction. Furthermore, research has found four factors as highly important: patient –therapist interaction, access and assistance by receptionist, and support personnel; physical environment, and overall satisfaction; and convenience. The items related to patient- therapist interaction showed the highest complete satisfaction scores (Diogenes, *et al*., 2007). The American Physical Therapy Patient Satisfaction Questionnaire includes interaction with the physical therapist and the staff and some environmental factors such as location, cost and parking. This demonstrated strong psychometric properties and its use was recommended with Italian-speaking population (Vanti, *et al*., 2014). Hingarajia, (2013) found support for the concept that the patient perception of the quality of professional interaction with the therapist, especially answering of patient's questions, is a critical component of patient satisfaction with physical therapy care. Whereas, in case of external factors, receptionist courteousness is standing critical for patients satisfaction.

Research also underlines that importance of organizational features, such as team interaction. The patient satisfaction is influenced more by the evaluation of the team than by the participation in decision-making process (Quaschning, *et al*., 2013).

Physiotherapy service is the most popular speciality from rehabilitation specialities where patient satisfaction is measured. Tennakoon *et al*. (2014) evaluated patient satisfaction with the physiotherapy service at a government

hospital in Sri Lanka on selected correlates of patient satisfaction such as physiotherapist-related factors, patient-related factors, nature of the physiotherapist and patient interaction, and professionalism of the service provided, and the logistics of the treatment environment was discussed. Authors noted that such an assessment of patient satisfaction should be an on-going process, as this may help the hospital management to improve their services continuously (Tennakoon and Zoysa, 2014). Medina-Meripeix *et al.*(2012) analysed the relationships between satisfaction and service quality evaluations of rehabilitation care for musculoskeletal disorders and found that older respondents reported high satisfaction more often than younger patients. In discussion the authors noted that while "waited time'' and "sensitive manners" are relevant for satisfaction, "attendance duration" and "interruptions during delivery of care" are relevant for service quality. The findings indicate that both physical and organizational environments influence patient's perceptions of quality in rehabilitation settings.

Servqual questionnaire as customer satisfaction measurement tool

One of most frequently used methods in service quality assessment is the SERVQUAL model, which is a multi-item scale developed to access customer perceptions of service quality in service and retail business (Parasuramnn, *et al.*, 1988). The scale breaks down the notion of service quality into five dimensions which were derived from five years of qualitative and quantitative customer service quality research (Parasuraman, *et al.*, 1991). The five service qualities dimensions identified through this process are1) *Tangibles*-physical facilities,equipment,staffappearance,etc.;2) *Reliability*-ability to perform service dependably and accurately;3) *Responsiveness*-willingness to help and respond to customer need;4) *Assurance*-ability of staff to inspire confidence and trust; and 5) *Empathy*-the extent to which caring individualized service is given. SERVQUAL measures service quality as the discrepancy (gap) between a customer expectation for a service offering and customer's perceptions of the service received. The SERVQUAL customer perception tool requires customers to answer questions about both their expectations and their perceptions and to assign a numerical importance weight to each of the five service quality dimensions (Parasuraman, *et al*, 1988). SERQUAL model and methodology is one of frequently used tools to measure customer satisfaction also in health care. Further some examples are discussed and compared.

Curryand Sinclair (2002) applied SERVQUAL framework and used 3 different questionnaires for 3 physiotherapy services: patients who received physiotherapy in hospital, outpatient department and community. This approach proved to be appropriate for assessing the quality of service provided by the physiotherapy and found communication as the most crucial aspect. It has also served to help understand the healthcare environment and its complexities that have to be managed. Similar study was conducted in Taiwan by Lin *et al.* (2009). The largest quality gap in this study was empathy.

Several researchers have used modified scales. For example, Butt and de Run (2010) used modified SERVQUAL scale's reliability, responsiveness, assurance, empathy, and tangibles. The modified scale proved to be a robust and reliable

instrument for measuring Malaysian healthcare service providers. Furthermore, Dewi *et al.* (2011) applied2 dimensions of SERVQUAL model; empathy and responsiveness for dental patients and found that priority should be given to dentist's communication.

In order to assess the applicability of the tool Papanikolaou and Zygoaris (2012) used SERVQUAL questionnaire for patients at Primary Health Care centre in Greece and concluded that questionnaire is powerful tool for assessing quality of health care services. Recent study by Khamis and Njau (2014) used the SERVQUAL scale to measure patients' level of satisfaction on quality of health Care at Mwananyamala hospital in Tanzania. Authors concluded that Hospital management should focus on improvement of communication skills among staff in showing compassion, politeness and active listening; ensure availability of essential drugs, and improvement on clinicians' prescription skills.

Essiam (2013) examined the quality dimensions and patient satisfaction with healthcare delivery at a public university hospital in Ghana. The data gathered were used to examine the psychometric properties of the SERVQUAL dimensions. Findings revealed gaps across all the SERVQUAL dimensions with responsiveness having the widest gap, followed by reliability, tangibility, empathy and assurance. The study indicated that patients' satisfaction was best explained by perceived responsiveness, followed by perceived empathy, perceived assurance, perceived tangibility, and perceived reliability. Table below presents the summary of SERQUAL related studies and specific dimensions used.

Table 1 Publications about SERVQUAL scale dimensions, applied in health care (2009-2014)

State	Scale Dimensions
Taiwan, Lin *et al.,* 2009	Tangibles, Reliability, Responsiveness:, Assurance, Empathy
*Malaysia,*Butt *et al.,* 2010	Tangibles, Reliability, Responsiveness:, Assurance, Empathy
Indonesia Dewi *et al.,* 2011	Responsiveness, Empathy
*Greece*Papanikolaou *et al.,* 2012	Tangibles, Reliability, Responsiveness:, Assurance, Empathy
*Malaysia*Mahdzir and Ismail, 2012	Tangibles, Reliability, Responsiveness, Assurance, Empathy, Outcome Component and Corporative culture, Teamwork, Professionalism.
*Serbia,*Senic and Marinkovic, 2012	Personal relationships, Promptness and Tangibility
*Ghana,*Essiam, 2013	Tangibles, Reliability, Responsiveness:, Assurance, Empathy
Tanzania, Khamis and Njau, 2014	Tangibles, Reliability, Responsiveness:, Assurance, Empathy

According to above-mentioned studies, SERVQUAL is powerful valuable tool to measure patient satisfaction with health care service because it incorporates all dimensions of value to patients; it has been widely used in different countries for many medical specialities. However, in various studies the number of dimensions range from 2 to 5 and certain dimensions are eliminated and adapted to specifics of the organisation or the sector. Taking into consideration the specifics of rehabilitation service, quality measurement tool should include all the relevant dimensions, moreover, it should be simple and easy to understand and complete for all types of patients.

Methodology and Research Process

A variety of tools described above suggest that survey instruments should be matched to the health care service being evaluated (Hingarajia, 2013; Naidu, 2009). Thus the first phase of this research providea qualitative exploration of the characteristics of the rehabilitation service in rehabilitation institutions upon which consumer build their perceptions about the quality of the rehabilitation service. This was performed through conducting a series of unstructured interviews with patients and rehabilitation medicine experts. Face to face semi- and unstructured interviews were used along with observations. Unstructured interview was chosen as the most appropriate technique because it is a method of data collection in which the participant talks openly and widely about topic with as little direction from the interviewer as possible. Although there is no predetermined list of questions, the interviewer has a clear idea of the topics to explore (Saunders and Lewis, 2012). Purposive sampling was used to select the interviewees. Those who have the expertise and will be able to answer the questions were selected. Respondents of the interviews were 10 health care professionals (3 doctors, 1 occupational therapist, 5 physiotherapists, 1 massage specialist, and 10 patients from 2 major Latvian rehabilitation centres, from different rehabilitation programmes (stroke, spinal, orthopaedic, back pain). Location of interviews was convenient places: in patients' wards or specialists' rooms, were they feel comfortable. The researcher had obtained permission from chief doctors at departments to conduct the interviews and make audio records with a digital Dictation Machine ICD-SX733. Every participant has received explanation about the purpose of the research and the interview, emphasising that it is participant's own opinions that are important. The questions of the interviews were organized around the service quality aspects which are important for customers as well as for the management of the centres, and thus should be included in the questionnaire.

The interviews were transcribed and the qualitative content analysis used as a method for data analysis (Elo and Kyngas, 2007) to retest existing data from theory and SERVQUAL model. After a categorization matrix has been developed, all data were analysed for content and coded for correspondence with identified categories. Some aspects that did not fit the categorization frame caused the researcher to add a new category. As most important categories, all respondents stated tangibles, reliability, assurance, empathy, educative information, communication, teamwork, and finance.Content analysis revealed that the satisfaction questionnaire with rehabilitation services should be simple and sector specific, and helped to create the questionnaire for Pilot study. Selected statements reflect the different dimensions of service quality and the image of rehabilitation institutions, including convenient rooms and professionalism of staff. Modified patient satisfaction questionnaire was created and structured similarly as the well-known SERVQUAL model.23 items were confirmed, using a seven-point Likert-type scale from strongly agree (7) to strongly disagree (1).The following five criteria included to rate by importance; the environment of the rehabilitation centre, the reliability of the centre, responsiveness of the staff, assurance, and individual attitude.

In addition, information on patient age, sex, type of rehabilitation (neurological, cardio respiratory, orthopaedic, respiratory, after operation or other), about previous experience of rehabilitation services (is it first time or second), and space for recommendations was added to the questionnaire. Further the questionnaire was evaluated for face and content validity by 3 experts (question content, wording, sequence, form and layout, question difficulty and instructions). The experts were chosen according to their previous experience and propensity to provide useful advice. The questionnaire was corrected according to the recommendations.

The first research phase was followed by the pilot study which was realized in one of Latvian leading Rehabilitation centres. The researcher closely followed how patients understood the questionnaire. Some difficulties were related to understanding the difference between expectation and perception. Difficulties occurred also with ranking the categories. Pilot study results were analysed with the statistical software SPSS, Reliability Statistics (Cronbach's Alpha), Kolmogorov-Smirnov Test, Independent Samples T-test, Regression analysis. Questionnaire scales, except tangible scale demonstrated questionable and acceptable internal consistency reliability - Cronbach's alpha coefficients were 0,63 (reliability); 0,93 (responsiveness); 9,11 (assurance); 0,60 (empathy)thus it was decided to further modify the questionnaire.

Based on results obtained from Pilot study and feedback from respondents regarding the ease of answering questions and ability to understand all items, the researcher together with experts grouped 23 variables of service quality delivered by rehabilitation centre into smaller number -18 statements. Categories were combined to three and named tangibles, responsiveness, and empathy. The overall satisfaction and loyalty from a customer expectation and perception dimensions was also included. In the final version seven point Likert scale was preserved. *Tangibles* include specific for rehabilitation environmental factors- comfortable living conditions, cleanliness, accessibility, catering. *Responsiveness* include statements about professionalism, knowledgeable staff, service quality, and information given by specialists. *Empathy* incorporates personal attitude, confidentiality, assurance, patient-team interaction. *Overall loyalty and satisfaction* include statements about overall satisfaction and willingness to return - information that could predict further loyalty. The instructions of the questionnaire were set more clear and specific. Due to the sector specifics and simplicity reason, the final version of the questionnaire did not include questions with reverse coding.

As population for final survey, patients 2 main Rehabilitation centres in Latvia (further RC1 and RC2) during January 2015 were selected by random sampling technique. Sampling Criteria: patients who have frequented a Rehabilitation centre, had overnight stay in the Rehabilitation centre, and have been treated by the rehabilitation team. 105 valid questionnaires were collected; however, some respondents have completed only perception part indicating that it is difficult for them to judge about expectations. 78 questionnaire with both parts completed are used for gap analysis. On average 68% of respondents had visited the rehabilitation centre for the first

time and had no previous experience, thus they did not know what they could expect from rehabilitation.

RESULTS AND DISCUSSION

According to SERQUAL methodology, expected quality should be compared with actually received, or perceived, quality in order to understand whether customer expectation are met and satisfaction level reached. Resulting mean scores of expectation and perception and mean gaps are presented in the table below.

quality and satisfaction and actually experienced one (t-test all p values > 0,05), however in RC 1 such differences exist and are significant at 5% level.

For testing of the final questionnaire scales for scale internal content reliability Cronbach`s alpha coefficients were used. As seen from the table above, all scales in both rehabilitation centres show satisfactory to good internal consistency reliability and thus are reliable. Test for normality (K-S test) showed normally distributed data (all p values are in between 0,29 to 0,99).

Table 2 Questionnaire items and descriptive statistics

	Questionnaire items and dimensions	Expectation		Perception		
		Mean	Standard deviation	Mean	Standard deviation	Gap
Q1	The office is comfortable, visually appealing, and clean	5,87	1,31	5,66	1,33	-0,21
Q2	Information on the provision of services (brochures, announcements, price list) is available and clearly presented	6,23	1,14	5,73	1,56	-0,50
Q3	I can easily reach all the necessary points: the room, WC, canteen, medical offices.	6,68	0,59	6,68	0,59	0,00
Q4	The food is delicious and healthy	6,37	0,89	6,10	1,21	-0,28
	Tangibles	25,15	3,00	24,16	3,39	-0,99
Q5	Professionals (doctors, functional specialist: physiotherapy, occupational therapy) at first meeting provide clear information on rehabilitation plans and targets	6,46	0,73	6,39	0,93	-0,07
Q6	Employees recalls the lessons and lead to them, if necessary.	6,38	0,89	6,52	0,87	0,14
Q7	I'm getting an explanation of recommendations for what to do at home, knowledgeable staff responds to my questions.	6,55	0,71	6,42	0,99	0,13
Q8	Staff provides quality service and their professional activity inspires confidence	6,47	0,81	6,52	0,73	0,05
Q9	If I get a problem, the staff demonstrates a genuine interest in the resolution of it.	6,44	0,84	6,30	1,01	-0,14
	Responsiveness	32,31	2,99	32,15	3,38	-0,16
Q10	Employees are always asking, if help is needed.	6,27	0,96	6,39	0,98	0,12
Q11	I feel that I am treated from a team of multidisciplinary rehabilitation specialists mutually discussing my problems and coordinating further actions.	6,24	0,98	6,18	1,15	-0,06
Q12	I have a confident feeling about staff behaviour during the course of treatment.	6,42	0,79	6,50	0,93	0,07
Q13	Staff is responsive, positive, kind, modest and tolerant.	6,51	0,75	6,56	0,72	0,05
Q14	I feel personal attitude in Rehabilitation centre.	6,28	0,93	6,28	0,95	-0,01
	Empathy	31,73	3,60	31,90	3,62	0,17
Q15	Overall, I am satisfied with services provided by Rehabilitation centre.	6,38	0,85	6,36	0,74	-0,02
Q16	I would definitely choose this rehabilitation centre again if its services are needed.	6,40	0,95	6,53	0,82	0,14
Q17	I would definitely recommend this Rehabilitation centre to my friends and relatives	6,41	0,87	6,50	0,77	0,08
Q18	My feelings and the overall state of health has improved.	6,32	0,93	6,32	0,93	0,00
	Overall satisfaction	25,51	3,12	25,71	2,61	0,20

Respondents were also asked to rank the importance of all dimensions and thus it was possible to calculate weighted scores of all dimension as well as total weighted as seen in the table below.

Table 3 Weighted scores of service quality dimensions

	Expectation Mean	Perception Mean	Gap	Importance weightings	Average weighted score
Tangibles	25,15	24,16	-0,99	2,49	-2,47
Responsiveness	32,31	32,15	-0,16	1,87	-0,30
Empathy	31,73	31,9	0,17	1,82	0,31
Total un-weighted score			-0,33		
Total weighted score					-2,45

Data in table indicate that customers the highest weighting assigned the tangible dimension. Average weighted score of this dimension is negative, as well as total weighted score thus indication the gap between expected and experienced quality of rehabilitation services. Data from RC 2 indicate that there is *no statistically significant difference* between expected service

Table 4 Cronbach's alpha coefficient values for questionnaire scales

Scale dimensions	Expectations/perceptions	Cronbach's alpha coefficient
		Both
Tangible factors	Expectations	0,71
	Perceptions	0,65
Responsiveness	Expectations	0,80
	Perceptions	0,79
Empathy	Expectations	0,87
	Perceptions	0,82
Overall loyalty and satisfaction	Expectations	0,89
	Perceptions	0,80

In order to find out to what extent service quality is associated with overall customer satisfaction and loyalty, *multiple regression analysis was performed.* It provides answer on the question 'what is the contribution of service quality to overall customer satisfaction and what remains unexplained?' indicating how much of the variation in the dependent variable can be explained with the aid of the independent variables and

how much variation remains unexplained. Since in social research normally a phenomena has a wide range of determinants, it is interesting to identify the value of service quality 3 constructs in overall satisfaction of the customer. Service quality constructs (tangibles, responsiveness and empathy) are dependent variables, and age, diagnosis and gender are included as controls.

Table 5 Regression model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,650[a]	,422	,355	1,60477

Predictors: (Constant), experience, sumRESperc, age, diagnosis, gender, time, sumTANperc, sumEMPperc

As seen in table above (perceived quality) $R^2 = 0,42$, what means that 42 % of overall satisfaction, which include willingness to return and recommend the centre services can be attributed to the measured parameters. For expected scale linear regression analysis produced even higherR^2value = 0,54. Model produced beta values significant at 5% level for expected and perceived quality scales for Responsiveness 0,42 and 0,26 and for Tangible scale 0,22 and 0,26 indicating that these aspects significantly contribute to overall loyalty and willingness to return and recommend.

At the end of the questionnaire open ended question was included and patients were asked to write recommendations and requests. In both establishments, patients expressed a lot of praises to rehabilitation team, staff kindness and empathy. Patients wished them luck and patience while working with sick people. Regard to the process of rehabilitation patients noted that they would like more individual approach, longer rehabilitation period, and to increase the available number of procedures. Moreover, patients wanted to know the payment in advance and the exact information about the prices of the available services. Patients wrote a lot about the need to improve living conditions: refurbish the rooms, improve heating, ensuring comfortable beds, change of bathroom furnishings and even improving other household conveniences, such as handles, shower rooms, cleanliness, and ventilation. It was suggested to improve Internet coverage and telephone, TV area, radio, access to small rooms. In addition, patients want to visit the library, read the latest newspapers, go to the cinema more often and spend their free time in more interesting atmosphere.

CONCLUSION

The research proved that in Latvian rehabilitation system SERQUAL model with 18 scales and 3 dimensions is suitable approach to measure patients' satisfaction. The study demonstrates the importance of the tangible component. In Latvia physical environment turned to be very important aspect for successful recovery process and influences perception of the service quality. Thus, findings support previous studies demonstrating that patients base their evaluations of the service quality, in part, on their perception of their care experiences with physical environment (Mediana-Mirapeix, *et al.*, 2013). Second important factor is responsiveness of the staff.

In Latvian rehabilitation centres, the service quality of certain dimensions has greater impact on the overall perception of the service and contributes to the patients' intentions to return and recommend the centre. The highest impact was attributed to responsiveness, and it should be noted that the patients strongly perceive staff responsiveness as part of professionalism and service quality. However, the patients themselves as the least important for their satisfaction compared with tangible factors are ranging empathy and responsiveness.

The expectations and perceptions of the patients in the both rehabilitation centres is evaluated as highly similar due to the identified relative lack of experience of most of the patients with regard to rehabilitation services. This leads to conclude further on that the tasks of rehabilitation services is not only to offer rehabilitation but also to carry out information and education activities for existing and potential patients thus increasing the patients' capacity to benefit from the services offered. Since the evaluations depending on the demographic segments did not show any significant differences, a differentiated approach would not lead to any significant impact to the level of patients' satisfaction.

Communication factors are especially important for patients with movement disability which leads to conclude that a differentiated approach is needed for patients with different type of disability and requires and a special training to rehabilitation specialists is needed in this respect. More attention should be paid to the quality of infrastructure and environment in the rehabilitation centres, including modern technologies and facilities. It will require capital investments. The staff training devoted to service quality should become part of the professional development among not only rehabilitation specialists but also among the managerial staff in order to ensure a systemic approach to the rehabilitation service leading to improved customers' service

The results of this research are valuable for quality improvements in Rehabilitation centres, since modified service quality assessment scale proved reliable instrument in Latvia. It is important since currently lack of awareness among the doctors on the real patients' expectations does not allow the rehabilitation specialists to address the patients' real needs and thus improve satisfaction and service quality. Developing a measurement tool that systematically gauges rehabilitation service quality and is easy to use could significantly contribute towards quality improvement.

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