QUOTE-Expectation: Development of Valid and Reliable Questionnaire

[1]Saad Ahmed Ali Jadoo, [2]Ammar Jawdat, [3]Mustafa Ali Mustafa Alabbasi,
[2]Al-Abed Ali Ahmed Al-Abed and [1]Namaitijiang maimaiti

[1]International Institute for Global Health (UNU-IIGH), United Nation University
[2]Department of Community Health Science, National University of Malaysia
[3]Department of Community Medicine, Tikrit University

Abstract: An expectation specific version of the QUOTE questionnaire was developed to measure the patients' perspective on part of the healthcare providers. The consistency and validity of the questionnaire was assessed. Extensive literature review and focus group discussions were used to select aspects for inclusion in the questionnaire that are important to patients. Item and factor analysis and reliability analysis were performed to test the internal consistency and validity of the questionnaire. Sixteen items were used in the QUOTE- Expectation questionnaire. Factors analysis showed that the scale items were loaded on three distinct factors with eiginvalues more than 1 were obtained. The overall explained variance of scale was 84.28% of the total variance.The internal consistency of the total questionnaire was good (Cronbach's alpha >0.90). Test–retest reliability was used to check the stability. Pearson correlation coefficient between the two assessments was high (r= 0, 967 p> 0.001). The QUOTE- expectation questionnaire has proved likely to be a valid and reliable tool that could be used to measure patient's expectation on part of the healthcare providers.

Key words: Expectation · QUOTE · Healthcare Provider · Skills · Communication

INTRODUCTION

Health services have witnessed great changes, most notably the increased competition in the area of health service provision. Also Patients' expectations of service quality are extremely growing and being higher than ever [1, 2]. Therefore, better understanding of patient expectations has become crucial for most medical service providers in a way that enables them to compete effectively [3]. Caring has been identified as the most important factor that impacts on health care customer satisfaction. There are specific skills that patient expects in health service providers and mostly fall under the caring term. Lim *et al*. [4] and Perucca [5] stated that caring has two main aspects;- Technical aspects (competence of the provider, thoroughness, clinical and operating skills of doctors and interpersonal aspects (humane, socio-psychological relationships between patient and health care provider), explanations of illness and treatment, availability of information and courtesy

and warmth received). Quality is often used as a criterion to assess the excellence of services and considered one of the sources of competition in health care provision [6,7]. Therefore, health institutions are increasingly facing important challenges in term of understanding, measuring and improving the quality of care [8]. Professional, timely and proper services are what the patients expect from the health organizations. Although quality of services provided is determined mainly by the process-related factors like scheduling, delivery of care in correctness and fastest time [9]. However, the accurate discrimination of the clients' needs and expectations is the most important step in identifying and providing high quality services [10].

International literature frequently studied expectations in relation to services and health quality. Parasuraman *et al*. [11] defined service quality as the gap between consumers' expectations and their perceptions of how the service is performed. Donabedian [12] defined quality as the degree to which health services meet the

---

Corresponding Author: Saad Ahemd Ali Jadoo, United Nations University, International Institute for Global Health,
Jalan Yaacob Latiff, 56000 Kuala Lumpur, Malaysia
Tel: 0060 176 300 438.

needs, expectations and standards of care of the patients, their families and other beneficiaries of care. Thorsteinsson [13] described satisfaction as occurring when services are rendered according to customer expectation, needs and perceptions. The patient perception of optimal care standards combined with previous experience in term of using health facilities are determinant factors of patient expectation [14].

Grol *et al*. [15] studied patients' priorities in general practice. They found that doctor-patient communication and accessibility of services are common priorities among general practice visitors in different countries. The needs, requests or desires prior to seeking the doctor [16], demands or wants and preferences [17], market communication, image, word of mouth, prior experiences with organizations, along with organizational and structural attributes [18] are other ways to express and explain the base of expectations. Bendall and Powers [19] described quality of care as a process by which health care providers influence loyalty and maintain existing patients. When patients' quality of care expectations have been exceeded, they will be satisfied and the health care service provider will retain customers and of course, if expectations are negatively disconfirmed, customer dissatisfaction will occur and the possibility of complaints opens. It is because of this fact, "looking at quality from customer's view" being important issue in modern marketing approach [20].

Literature referred to attempts to measure patients' expectations, but no more standardized instrument are currently dependable [21, 22]. Dawn and Lee [23] reviewed the definition of expectation as well as its measurement methods. They summarized data collected from many articles and produced a list of important characteristics when reviewing measurement approaches such as: "definitional orientation, specificity, content type, categories of expectations measured, clinical setting type, visit type, timing of data collection and instrument type". They also indicated that the self-administered questionnaire is the most commonly used tool. Although expectations instrument types are different, "the patients' satisfaction does not appear to depend on the expectations instrument used" [21, 23, 24].

This paper aimed to develop valid and reliable QUOTE-expectation questionnaire (QUality Of care Through the patients Eyes) and to explore that QUOTE-model could be used to measure people's expectation on part of the healthcare providers.

MATERIALSAND METHODS

Questionnaire Development: The international literature identified different versions of QUOTE instrument which has been used for many reasons [25-34]. There is no strict guideline regarding the number of items to be included [30]. Extensive literature review and focus group discussion have been used to develop the questionnaire's items and main domains. Face validity, content validity and construct validity are common procedures used to establish instrument's validity. In term of internal consistency and reliability, cronbach's alpha and test-retest [28] are recruited to test the questionnaire's homogeneity and stability respectively. Understanding and interpretation of questions have been enusred through pilot studies, while the psychometric performance was tested by relatively large public sample. Participants in two pilot studies and later in psychometric study were asked to respond on a 5-item Likert scale (strongly agree, agree, don't know, disagree, strongly disagree) to each statement. A ''don't know'' or neutral option was included, as we did not expect all participants to be able to offer a view on all aspects of care [25].

Item Development: Panels or focus group discussion method was used to explore a specific set of indicators in relation to one topic [30]. In this step, group of seven academics conducted two moderated group sessions; each lasting for 90 minutes. Audio-tape has been used to record and translate these sessions into formal statements. Discussions mainly focused around health service provision and quality of care from the patients' point of view [27, 28]. In the first session, bank of relevant questions prepared in advance through extensive literature review [25-34] or by adding extra questions when needed. In second session, the type of main domains, number of items in each domain, the concept of the questions, which question is ambiguous, or question has to be changed in translation to make it clearer as well as the fluency and understandability of the items were the main topics discussed by participants. Experts decided on 16 items mostly have been chosen from the generic part of QUOET questionnaire.

Arabic Version: A commission of five experts: two academics working in the community health science in addition to three linguistic experts with the required competence in English language and familiar with the

literature has been used to translate the first version into local language (Arabic) using standard translation safeguards. In term of content validity, both versions have been reassessed to avoid the pitfalls in the translated versions. After the evaluation, the commission decided that there are no discrepancies between content and meaning of the both forms.

First Pilot Study: Both versions applied to twenty academics and graduate students in the related field to test for parallel test validity.

Second Pilot Study: The Arabic version was piloted with twenty patients, during which time they were asked to comment on omissions or irrelevant items.

Construct Validity: The degree to which an instrument measures the theoretical construct it is intended to measure. In this step, psychometric study including explorative factor analysis (Principal Component Analysis with Varimax Rotation and Kaiser Normalization) [26-32] was run to explore factors within the questionnaire. Although internationally known that the recommended sample size required in questionnaire development using factor analysis could be up to 10 times the number of variables [35], however, in QUATE questionnaire the size is more inflated to avoid bias in sample collection and high rate of incomplete questionnaires. The confirmed version has been distributed over six hundred heads of household selected by a multi stage sampling method. Each respondent must had the use of at least two or more types of health care services in the last year as inclusion criteria. After checking the questionnaire for completeness of data and excluding the healthcare providers, 450 out of five hundred questionnaires, (ninety percent) made complete questionnaires used for empirical analysis. The other hundred questionnaires were recruited for pilot study and test-retest reliability. The acceptability of the questionnaire was also examined by reporting response rates of questions.

Internal Consistency and Reliability: The questionnaire's internal consistency and homogeneity was calculated by Cronbach's alpha, while the qestionnaire's stability chicked by test-retest reliability. Therefore, a sample of forty respondents were asked to complete the questionnaire twice with an interval of three weeks.

Statistical Analysis: Normality tests were done and all of the quantitative data were found to be normally distributed; therefore, Pearson's correlation coefficient

was assessed between the two completed questionnaires. Statistical Package for Social Science (SPSS) programme (version 16; SPSS Inc., Chicago, IL, USA) was used for data analyses.

RESULTS

This section concentrates on the QUOTE-expectation instrument as it was derived from the second empirical test, with analysis being performed on the sample of 450. The mean age of response group was 44.59 years (SD 13.67). In the year before receiving the questionnaire, respondents have at least two conducts with health care services.

Face and content validity: With respect to the validity of the conceptual framework of the QUOTE instruments, we followed the de Vaus model to test the questionnaire validity. All items were considered as one topic and recruited in analysis to test whether the 16 QUOTE instrument could be used to measure patient's expectation from healthcare provider and health care institutions. The focus panels included three women and four men with mean age 46 years (range 32–60). They met up twice in Iraq in January 2013. Many versions of QUOET questionnaire have been reviewed. Face validity was good: all Panel group agreed on 16 items from the specific and generic parts of QUOET questionnaire. Content validity was also good: committee of two academics and three linguistic experts suggested keeping the same items with some changes in the translation to make it clearer and understandable. Out of the 500 questionnaires collected from heads of household using multi stage sampling method, 450 (90.0%) have been completed and entered analysis. The median (interquartile range) completion rate for questions was 92.0%. Scale scores were calculated for a median (interquartile range) of 93.5% of responses.

Parallel Test Validity: Twenty academics and graduate students participated in scoring the Arabic and English forms for parallel test validity. The correlation between the scores obtained from two forms were significant (r= 0.92, p >0.05).

Construct Validity: The construct validity was determined using principal components analysis with Varimax rotation method (PCA). The sample adequacy for extraction of the factors was confirmed through Kaiser- Meyer-Olkin (KMO) test and Bartlett's test of sphericity. The Bartlett's test result was significant (p < 0.001) and the KMO value (0.902) showed that using

Table 1: Total Variance Explained Among Factors With Eigen Values

	Initial Eigen values			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.829	55.179	55.179	6.372	39.823	39.823
2	3.521	22.006	77.185	3.585	22.404	62.226
3	1.136	7.097	84.282	3.529	22.056	84.282
4	.649	4.057	88.339			
5	.427	2.671	91.010			
6	.342	2.138	93.148			
7	.263	1.647	94.794			
8	.240	1.500	96.294			
9	.182	1.137	97.431			
10	.124	.775	98.206			
11	.098	.611	98.817			
12	.066	.409	99.227			
13	.057	.359	99.585			
14	.039	.246	99.832			
15	.018	.110	99.942			
16	.009	.058	100.000			

* Extraction Method: Principal Component Analysis

Table 2: Components loadings, Eigenvalue and Total Variance Explained of QUOTE- 16 items Expectations about Health Care Providers as result of Principal Component Analysis with Varimax rotation

	Rotated Component Matrix					
No.	Items included in QUOTE-expectation	Component			mean	S.D
	Health care providers and health care Institutions should…..	1	2	3	mean	S.D
1	: should make sure that, in urgent matters, I can consult a specialist soon after a referral.	0.939	*	*	3.45	0.63
2	: should always be easily accessible by telephone.	0.933	*	*	3.47	0.63
3	: should always inform me, in understandable language, about the medicines and possible risk or side effects involved in any treatment.	0.909	*	*	3.47	0.63
4	: should have waiting and consultation rooms that are easily accessible for disabled people or people in a wheelchair.	0.893	*	*	3.47	0.63
5	: should be willing to discuss matters with me if I feel things have not run satisfactorily.	0.890	*	*	3.47	0.61
6	: should always allow me to manage my own budget for care.	0.832	*	*	3.48	0.59
7	: should always allow me to choose another professional.	0.789	*	*	3.50	0.59
8	: should always take me seriously.	*	0.869	*	3.57	0.57
9	: should always have enough time for me.	*	0.860	*	3.56	0.58
10	: should have a good understanding of my problems.	*	0.830	*	3.56	0.58
11	: should work efficiently.	*	0.803	*	3.85	0.57
12	: should always advice services or prescribe medicines which are free of charge or fully covered by insurance.	*	*	0.892	3.31	076
13	: should always keep appointments punctually.	*	*	0.867	3.40	0.70
14	: should not keep me waiting in the waiting room for more than 15 minutes.	*	*	0.859	3.28	0.79
15	: should always allow me to decide on which help to get.	*	*	0.812	3.28	0.77
16	: should arrange with me what to do in case of an emergency.	*	*	0.761	3.44	0.66
	Eigen value	6.372	3.585	3.529		
	% of Variance	39.823	22.404	22.056		

* This table shows only the values more than 0.40.

PCA is suitable. In this analysis, the factors with eigen values equal or higher than 1 were considered significant and chosen for interpretation. By PCA, three factors were extracted as showen in screen plot, Figure 1, explaining 84.28 % of the total variance in Table 1. All factor loadings were higher than 0.4, indicating that they were statistically significant and higher than the recommended level. The factor loading of each item has been listed in Table 2.

- Factor 1 included seven items which explained 39.82% of the total variance and was labeled as "accessibility and communication skills".
- Factor 2 included five items which explained 22.40% of the total variance and was named "organizational skills".
- Factor 3 included 4 items, which explained 22.06 % of total variance and was named "professional skills".

Table 3: Test- retest reliability between two measurements

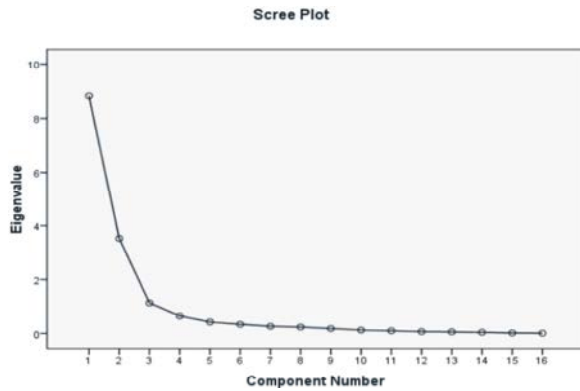|	Test	Re-test
n	40	40
mean	12.58	2.24
sd	2.32	2.22
t-test		1.170
p		0.059 < 0.05
r		0.967
p		0.000 >0.001

Scree Plot

Fig. 1: Screen Plot

Based on our findings, the mean scores of expectations were high and ranged from 3.28 for (item 14: should not keep me waiting in the waiting room for more than 15 minutes and item 15: should always allow me to decide on which help to get) to 3.85 for (item 11: should work efficiently). The total means score of patients' expectation was 3.46. Among the three factors, the highest expectation related to the professional skill (mean score = 3.85) and the lowest expectation related to the organizational skills (mean score = 3.28). The four items with highest expectation score were related to the professional skills. Of the four items with lowest expectation score, all 4 items related to organizational skills.

Internal Consistency and Reliability: The Cronbach's alpha coefficient for assessment of the questionnaire's internal consistency was 0.914 for the total means and in the range of 0.89 to 0.91 for all items studied. The test-retest reliability was used to check the stability. For this purpose the questionnaire was applied to forty participants two times with an interval of 21 days. The Pearson correlation coefficient and paired t-test was calculated. According to the results in Table 3, there is a significant positive correlation between two measurement (r= 0, 967 p> 0.001) and there is no difference between the means of two tests (p < 0.05). The results indicated the good stability of the questionnaire and sufficiently reliable.

DISCUSSION

The questionnaire has been developed using item analysis and factor analysis on items with face, content and construct validity [36]. While the reliablity tests (Cronbach's alpha and test retest) have been used to test the consistency or repeatability and stability of the questionnaire.

Face and content validity have been ensured during the qualitative phase by group of seven academics in two focus group discussions. All the important items to panel group as well as elements identified from other studies have been included [37]. Experts adopted 16 elements from different dimensions to be the basis of the first version. This version has been translated to local language (Arabic) to be tested in a larger group of population. Specialized committee of two academics and three linguists has been assigned to translate the questionnaire. Two pilot studies have been used. First, both versions distributed to twenty individuals who are academics and grduate students in the feild of public health to test for parallel validity. Positive and significant correlation (r= 0.92, p >0.05) showed that the two forms have validity of parallel test [38]. Also the mean scores obtained from the translated Arabic form did not have any significant difference from the mean scores of the English form. In the second pilot study, 20 respondents agreed to keep the same items indicating that the questionnaire was fulfilling content criteria.

In order to test the questionnaire's acceptability to participants, response rates for each question and scale scores have been calculated. Out of the 500 participants in the empirical study, questionnaire was completed for 450 (90.0%). The completion rate was high with median (interquartile range) for questions of 92.0%. The scale scores were also high for a median (interquartile range) of 93.5% of responses. This showed that the tool can successfully be a self administered or at interview to wide range of population.

In the present study factor analysis (principal component analysis with varimax rotation) was used to test the construct validity. Factors analysis with 16 items showed that the scale items were loaded on three distinct factors with eiginvalues more than 1 were obtained. The overall explained variance of scale was 84.28% of the total variance.This result was consistent with studies conducted elsewhere [25-34]. Factor one included seven items which explained 39.82% of the total variance and described the action of communication between the healthcare provider and patients and accessibility. Some statments referred to information

about the medicine and the risk that may involved. Accessibility to other caregivers on need or for consultation soon if patient being referred. Availability of consultation room that are easily accessible for disabled people or people in a wheelchair. As communication and accessibility is a closely associated condition; they may be loaded in a single factor. Five items in relation to health institution skills were loaded in the second factor and explained 22.40% of the total variance. Issues such as (appointment and waiting time, the way of reimbursement of health service or prescribed medicines, patient's opinion in case of emergency or any treatment) are addressed in this factor. Third factors included items such as (always take me seriously, have enough time for me, have a good understanding of my problems and work efficiently) which explained 22.06 % of total variance and described specific professional skills which are expected to be in health care providers [32, 39].

The widely accepted social cut-off is that Cronbach's alpha coefficient should be 0.70 or higher for a set of items to be considered as a reliable scale [40]. In this study, Cronbach's alpha coefficient for homogeneity was 0.914 for the total means and in the range of 0.89 to 0.91 for all items studied indicating a high degree of internal consistency [40]. Test–retest reliability was used to check the stability. The QUOTE-expectation has proved likely to reproduce similar results at an interval of three weeks. Pearson correlation coefficient between the two assessments was high (r = 0, 967 p> 0.001). There was no difference between the means of two tests (p < 0.05). The results indicated the good stability of the questionnaire and was sufficiently reliable [38]. Thus the study reveals that the questionnaire is reliable and valid.

CONCLUSION

The questionnaire was developed systematically and was confirmed to be satisfactory valid and reliable instrument. The QUOTE-expectation instrument described in this article is an assessment tool for patient's expectation from healthcare provider. This tool can be considered as a new model or method, rather than a collection set of items to measure the patient's expectation. However, we think that the conceptual framework underlying this new tool have also to be tested in different communities and different languages, since health care systems differ from coutry to country.

REFERENCES

1. Syed Muhammad, I., I. Aamir, D.M.H. Kee and M. Awan, 2012. Improving Operational Performance of Public Hospital in Pakistan: A TQM Based Approach. World Applied Sciences Journal, 19(6): 904-913.

2. Syed Muhammad, I., D.M.H. Kee and S. Shahbaz, 2012. Service Quality and Rail Transport in Pakistan: A Passenger Perspective. World Applied Sciences Journal, 18(3): 361-369.

3. Gilbert, F.W., J.R. Lumpkin and R.P. Dant, 1992. Adaptation and customer expectations of health care options. Journal of Health Care Marketing, 12(3): 46-55. http://www.ncbi.nlm.nih.gov/pubmed/10120534.

4. Lim, P.C., N.K.H. Tang and P.M. Jackson, 1999. An innovative framework for health care performance measurement. Managing Services Quality, 9(6): 423-34. http://www.emeraldinsight.com/journals.htm?articleid=842670 and show=abstract.

5. Perucca, R., 2001. Customers with options. Nursing Management, 32(9): 20-4.

6. Taner, T. and J. Antony, 2006. Comparing public and private hospital care service quality in Turkey. Int. J. Health Care Qual Assur Inc Leadersh Health Serv., 19(2-3): 1-10. http://www.ncbi.nlm.nih.gov/pubmed/16875104.

7. Saad, A.A.J., W.P. Sharifa Ezat, A. Zafar and J. Ammar, 2012. Level of Patients' Satisfaction Toward National Health Insurance in Istanbul City (Turkey). World Applied Sciences Journal, 17(8): 976-985.

8. Syed Muhammad, I., M. Muhammad and Y. Irfan, 2009. Achieving Service Quality Through its Valuable Human Resources: An Empirical Study of Banking Sector of Pakistan. World Applied Sciences Journal, 7(10): 1222-1230.

9. Farzianpour, F., M. Arab, S. Amoozagar, A.R. Fouroshani, A. Rashidian, M.N. Moghadam and S. Hosseini, 2011. Evaluation of international standards of quality improvement and patient safety (QPS) in hospitals of tehran university of medical sciences (TUMS) from the managers' point of view. World Applied Sciences Journal, 15(5): 647-653.

10. Zeithaml, V.A., L.L. Berry and A. Parasuraman, 1996. The behavioural consequences of service quality. J. Marketing, 60: 31-46.

11. Parasuraman, A., V.A. Zeithaml and L.L. Berry, 1985. A conceptual model of service quality and its implications for future research. Journal of Marketing, 49(4): 41-50.

12. Donabedian, A., 1985. Twenty years of research on quality of medical care, 1965-1984. Evaluation and the Health Professions, 8(3): 243-65. http://www.ncbi.nlm.nih.gov/pubmed/10301003.

13. Thorsteinsson, L.S., 2002. The quality of nursing care as perceived by individuals with chronic illness. The Medical Touch of Nursing, 11: 32-40.

14. Kucukarslan, S.N. and A. Nadkarni, 2008. Evaluating medication-related services in a hospital setting using the disconfirmation of expectations model of satisfaction. Res Social Adm Pharm, 4(1): 12-22. http://www.ncbi.nlm.nih.gov/pubmed/18342819.

15. Grol, R., M.M. Wensing, J. Mainz, P. Ferreira, H. Hearnshaw, P. Hjortdahl, F. Olesen, M. Ribacke, T. Spenser and J. Szécsényi, 1999. Patients' priorities with respect to general practice care: an international comparison. Family Practice, 16(1): 4-11.

16. Williams, S., J. Weinman, J. Dale and S. Newman, 1995. Patient expectations: what do primary care patients want from the GP and how far does meeting expectations affect patient satisfaction? Family Practice, 12(2): 193-201.

17. Buetow, S.A., 1995. What do general practitioners and their patients want from general practice and are they receiving it? A framework. Social Science and Medicine, 40(2): 213-221. http://www.ncbi.nlm.nih.gov/pubmed/7899933.

18. Leventhal, L., 2008. The role of understanding customer expectations in aged care. International Journal of Health Care Quality Assurance, 21(1): 50-59.

19. Bendall, D. and L.L. Powers, 1995. Cultivating loyal patients. Journal of Health Care Marketing,15(4): 50-2. http://www.ncbi.nlm.nih.gov/pubmed/10154644.

20. Tahmoores, H. and H.G. Hoda, 2012. Identifying and review of effective factors on marketing relationship in national iranian drilling company from managers' view. World Applied Sciences Journal, 20(7): 1036-1042.

21. Peck, B.M., D.A. Asch, S.D. Goold, D.L. Roter, P.A. Ubel, L.M. McIntyre, K.H. Abbott, J.A. Hoff, C.M. Koropchak and J.A. Tulsky, 2001. Measuring patient expectations: does the instrument affect satisfaction or expectations? Med Care, 39(1): 100-8. http://www.ncbi.nlm.nih.gov/pubmed/11176547.

22. Thompson, A.G. and R. Sunol, 1995. Expectations as determinants of patient satisfaction: concepts, theory and evidence. Int. J. Qual Health Care, 7(2): 127-41. http://www.ncbi.nlm.nih.gov/pubmed/7655809.

23. Dawn, A.G. and P.P. Lee, 2004. Patient expectations for medical and surgical care: a review of the literature and applications to ophthalmology. Surv Ophthalmol, 49(5): 513-524. http://www.ncbi.nlm.nih.gov/pubmed/15325196.

24. Kravitz, R.L., E.J. Callahan, R. Azari, D. Antonius and C.E. Lewis, 1997. Assessing patients' expectations in ambulatory medical practice. Does the measurement approach make a difference? J. Gen. Intern Med, 12(1): 67-72. http://www.ncbi.nlm.nih.gov/pubmed/9034949.

25. Sixma, H.J., J.J. Kerssens, Van C. Campen and L. Peters, 1998. Quality of care from the patients' perspective: from theoretical concept to a new measuring instrument. Health Expectations, 1(2): 82-95. http://www.ncbi.nlm.nih.gov/pubmed/11281863.

26. Campen, C. Van, H.J. Sixma, J.J. Kerssens, L. Peters and J.J. Rasker, 1998. Assessing patients' priorities and perceptions of the quality of health care: the development of the quote-rheumatic-patients instrument. British Journal of Rheumatology, 37(4): 362-368. http://www.ncbi.nlm.nih.gov/pubmed/9619883.

27. Sixma, H., C. Van Campen, J.J. Kerssens and L. Peters, 2000. Quality of care from the perspective of elderly people: the QUOTE- Elderly instrument. Age and Ageing, 29(2): 173-178. http://www.ncbi.nlm.nih.gov/pubmed/10791453.

28. Eijk, I. Van. Der, H. Sixm, T. Smeets, F.T. Veloso, S. Odes, S. Montague, G. Fomaciari, B. Moum, R. Stockbrugger and M. Russel, 2001. European Collaborative Study Group on IBD: Quality of health care in inflammatory bowel disease: development of a reliable questionnaire (Quote-IBD) and first results. American Journal of Gastroenterology, 96(12): 3329-3336. http://www.ncbi.nlm.nih.gov/pubmed/11774945.

29. Hekkink, C.F., H.J. Sixma, L. Wigersma, C.J. Yzermans, J.T. M. van. Der. Meer, P.J.E. Bindels, K. Brinkman and S.A. Danner, 2003. QUOTE-HIV: an instrument for assessing quality of HIV care from the patients' perspective. Qual Saf Health Care, 12(3): 188-193. http://www.ncbi.nlm.nih.gov/pubmed/12792008.

30. Gutteling, J.J., A. de Man. Robert, Jan. J.V. Busschbach and A.S.E. Darlington, 2008. Quality of health care and patient satisfaction in liver disease: the development and preliminary results of the QUOTE-Liver Questionnaire. BMC Gastroenterology, 20: 8-25. http://www.ncbi.nlm.nih.gov/pubmed/18570638.

31. Van Weert, J.C., J. Jansen, G.J. de Bruijna, J. Noordman, S. Van Dulmen and J.M. Bensing, 2009. QUOTEchemo: A patient-centred instrument to measure quality of communication preceding chemotherapy treatment through the patient's eyes. European Journal of Cancer, 2(45): 2967-2976. http://www.ncbi.nlm.nih.gov/pubmed/19615889.

32. Bara, A.C., 2003. The Romanian Health Care System in Transition from the Users' Perspective. Groningen: Northern Centre for Healthcare Research (PhD-dissertation). http://irs.ub.rug.nl/ppn/256518874.

33. Groenewegen, P.P., J.J. Kerssens, H.J. Sixma, I. Eijk and W.G. Boerma, 2005. What is important in evaluating health care quality? An international comparison of user views. BMC Health Serv Res., 21: 5(1):16. http://www.ncbi.nlm.nih.gov/pubmed/15723701.

34. Calnan, S., H.J. Sixma, M.W. Calnan and P.P. Groenewegen, 2000. Quality of local authority occupational therapy services: developing an instrument to measure the user's perspective. British Journal of Occupational Therapy, 63(4): 155-162.

35. Couper, M.P., R. Tourangeau, F.G. Conrad and E. Singer, 2006. Evaluating the effectiveness of visual analog scales, a web experiment. Social Science Computer Review, 24(2): 227-245.

36. de Vaus, D.A., 1991. Surveys in social research. London: UCL Press.

37. Merve, G.B., 2008. Developing a survey about factual knowledge related to risks and adjustments of student teachers for national disasters: its validity and reliability. World Applied Science Journal, 4(1): 16-21.

38. Yerlisu, T. and E. Agyar, 2011. Cross-cultural adaptation of perceived freedom in leisure scale. World Applied Sciences Journal, 14(7): 980-986.

39. Saad, A.A.J., S. Aljunid, N.S. Seher, A. Zafar and W.P. Sharifa Ezat, 2012. People's expectations from healthcare providers-a Turkish perspective. BMC Health Services Research, 12(l1): 7.

40. Barman, M.P., J. Hazarika and A. Kalita, 2012. Reliability and validity of assamese version of EORTC QLQ-C30 questionnaire for studying the quality of life of cancer patients of assam. World Applied Sciences Journal, 17(5): 672-678.