doi: 10.13241/j.cnki.pmb.2014.10.041

# An Exploratory and Practice on Evaluation System of Social Satisfaction on Hospital*

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**ABSTRACT Objective:** To investigate the evaluation system of social satisfaction on hospital, which reflects social expectations, and enhance the social satisfaction through survey. **Methods:** The satisfaction was studied by using the evaluation system of social satisfaction explored by hospitals. **Results :** The evaluation system consists of two aspects quantitative evaluation and qualitative evaluation. The results of quantitative evaluation show that the satisfaction of applying for a card, registration 3.95 guiding services 4.12 awareness of hospitalization expenses 3.87 and medical departments services 4.39 hospitalization expenses for discharged patients 4.37 medical treatment environment 4.41 were at lower levels; the doctor-patient communication and service attitude were lower than others in qualitative evaluation of satisfaction. **Conclusion :** Social Satisfaction Evaluation System can systematically reflect the problems existing in the hospital. We can find the problems in hospitals. Now the overall social satisfaction on hospitals is in a high level .But the administrators should give more attention to the problems of doctor-patient communication, basic service attitude and so on.

**Key words:** Hospital management; Social Satisfaction; Evaluation System; Exploratory and Practice

**Chinese Library Classification(CLC): R197 Document code: A**

**Article ID: 1673-6273(2014)10-1969-05**

## Introduction

With the he development of modern hospital management theory and introduction of the concept of "patient-centered" service[1], the problem of social satisfaction on hospital is increasingly recognized by hospital administrators. The working implementation details of reviewing three-level hospitals started in 2011, which regarded social satisfaction evaluation system on hospital as an important part in hospital management [2]. In order to improve the quality of medical services and operate the hospital more effectively, this study attempts to create a more systematic evaluation system, and tries to finish a investigation to solve some problems.

## 1 Materials and Methods

### 1.1 Establish a Evaluation System

Evaluation system including quantitative evaluation and qualitative evaluation is a comprehensive assessment system combined with daily complaint statistics reflected from morals online, livelihood online, letters and reports[3]. Quantitative evaluation is constituted by three parts, which is, satisfaction of the outpatients, inpatients and discharged patients [4]. The qualitative evaluation includes informal symposium of workers, social supervisors' seminars, test of morals supervision and the third-party test[5].

### 1.2 Survey Instruments

Different questionnaires are prepared for outpatients, inpatients and discharged patients respectively[6]. Likert scale method was used, and scores from 1 to 5 represent "very dissatisfaction" to "very satisfaction", respectively. Higher score indicates higher satisfaction[7].

### 1.3 Sources and the Sampling Methods

The outpatients, inpatients and discharged patients were our objects in quantitative evaluation[8]. Six internship graduates majoring in hospital management conducted this field investigation. A total of 300 questionnaires were distributed to outpatients, 287 returned, recovery of 95.7%.

Stratified random sampling method is used for inpatients. We sampled 100, 80,60,40,20 patients from the internal medicine, surgery, ENT, gynecology and pediatrics and other sections respectively[9]. In order to reduce the evaluation bias, respondents were older than 16 years old [10]. A total of 300 questionnaires were issued, the valid response rate was 100% (all of them were returned); satisfaction surveys of discharged patient were sampled from feedback surveys of the hospital, adding up to 300 copies. The main sources of qualitative data were from the social supervisors' seminars, problems reflected by morals inspection team and the summary of patient complaints[11].

### 1.4 Statistical Analysis

The Excel software for data sorting, SPSS11.0 software were used for statistical analysis after verification. Both of the two jobs were conducted after recovery questionnaires and unified entry them.

* Foundation items: CHARLS Natural Science Foundation of China (No. 71130002)

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(Received: 2013-10-11 Accepted: 2013-11-12)

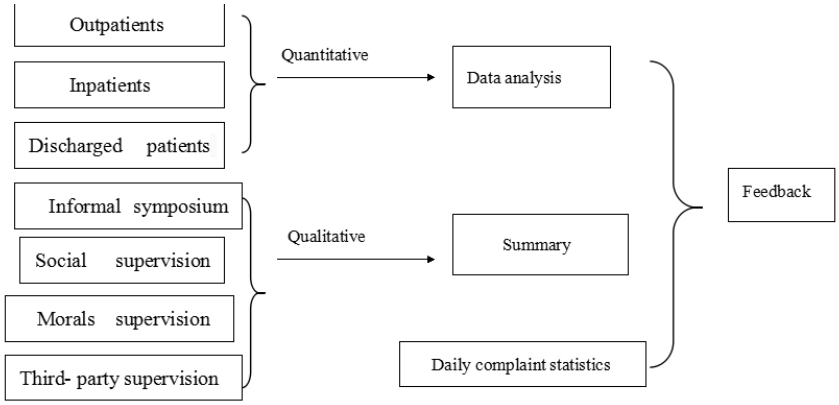


Fig.1 structure chart of social satisfaction evaluation on hospital

## 2 Results and Analysis

### 2.1 The Reliability and Validity of the Questionnaire

**2.1.1 Reliability Evaluation** Cronbach α was used for scale reliability calculations[12]. Generally, α (α = ( n /( n-1 ))(1-∑ S t2/ S2)( 0 < α < 1 )) is greater than 0.7, indicated that the questionnaire is highly credible. Through calculation, the reliability coefficients of satisfaction evaluation for outpatients, inpatients and discharged patients were 0.8327, 0.8667 and 0.7828 respectively, which met the above requirement[13].

**2.1.2 Validity Evaluation** The construct validity was used to evaluate the questionnaire and the factor analysis to evaluate the construct validity of it. Results are shown in Table 1, which showed that the data was suitable for factor analysis [14]. Factor analysis extracted 6 factors greater than or equal to 1. By removing projects with low degree in common, a scale with 22 clauses were obtained from which 5 factors were sampled. If the amount of total variance of 70.14% can be explained, the questionnaire is in high construct validity.

Table 1 KMO test and bartlett test

| Test methods | | Result |
|---|---|---|
| KMO Test | | 0.82 |
| Bartlett Test | $X^2$ | 1564.32 |
| | | P<0.001 |

### 2.2 Descriptive Statistics

**2.2.1 Patients´ Sex and Age** Among the 287 valid copies of outpatients, people who were over 60 accounted for 26.1%, while 18-60 accounted for 62.4%; male accounted for 52.5% while female 47.5%. For inpatients, those who aged over 60 accounted for 30.7%, while 18-60 accounted for 59.3%; of which males was 50.9%, and females was 49.1%. For discharged ones, people over 60 years old accounted for 32.7%, 18-60 accounted for 60.3%; of which males was 46.9%, and females was 53.1%. Statistics showed that the sex ratio of our investigation was balanced, but elderly patients occupied a relatively high proportion, which kept pace with the general trend of the aging in our country. The survey is consistent with the data of CHARLS Wave1 2011[14].

**2.2.2 Patients´ payment for Medical Expenses** Amongall patients, medical insurance payments is 78.8% . With the improvement of China's health care system, more and more patients obtain reimbursement of the medical expenses and the proportion gradually increases.

Table 2 The payment of the cost of patients

| Payment of fee | Frequency | Result |
|---|---|---|
| Health care in town | 370 | 41.7 |
| Health care in countryside | 329 | 37.1 |
| Others | 188 | 21.2 |
| Total | 887 | 100 |

### 2.3 Patient Satisfactions of Health Care Services

Table 3 showed that outpatients were least satisfied with the waiting time for registration and payment, which was worth attention. The high mean and low standard deviation relatively on the above table showed people were most satisfied with attitude and skills of doctors.

Compared with the outpatients satisfaction, the satisfaction of inpatients with both mean and standard deviation were better. The above data showed they were less satisfied with rights of informed consent for the specific medicine, examination, which needed to

pay more attention. The low mean (lower than 4.5) and larger standard deviation (larger than 3.0) indicated their wide divergence on the attitude of medical departments and hospital catering service. The other mean was higher, with low discrete degree.

Table 3 Analysis for outpatients satisfaction

| Survey contents | Mean | Standard deviation |
|---|---|---|
| Waiting time for registration and payment | 3.95 | 3.09 |
| Guiding services | 4.12 | 6.33 |
| Attitude of doctors | 4.63 | 2.98 |
| Skill level of doctors | 4.86 | 2.03 |
| Attitude of nurses | 4.75 | 7.61 |
| Skill level of nurses | 4.88 | 5.29 |
| Attitude of medical departments | 4.27 | 8.97 |
| Order and environment of Outpatient service | 4.49 | 9.35 |
| Publicity of price | 4.29 | 8.31 |
| Service procedure of outpatient | 4.52 | 5.44 |

Table 4 Analysis for inpatients satisfaction

| Survey contents | Mean | Standard deviation |
|---|---|---|
| Attitude of doctors | 4.87 | 3.12 |
| Skill level of doctors | 4.91 | 2.95 |
| Attitude of nurses | 4.76 | 2.85 |
| Skill level of nurses | 4.88 | 2.76 |
| Attitude of medical departments | 4.39 | 4.81 |
| Medical effects | 4.84 | 3.01 |
| Rights of informed consent | 3.87 | 1.97 |
| Receiving wrapped bonus medical staff | 4.95 | 2.33 |
| Hospital environment | 4.92 | 4.51 |
| Catering service | 4.25 | 3.17 |

According to table 5, discharged patients showed low satisfaction with service process, rights of informed consent and hospital environment, as well as small discrete degree comparatively; the satisfaction of ethics of medical staff, medical effect and hospital management were relatively high, but the dispersion degree was bigger. Those above data demonstated the wide divergence of scoring the hospital for discharged patients.

Overall, the satisfaction among discharged patients (4.59), outpatients (4.48) and inpatients (4.66) showed little difference. But the standard deviation of discharged patients (5.25) and outpatients (5.9) were significantly higher than that of inpatients (3.15).

**2.4 Analysis of variance**

The analysis of variance showed degree of education ($P = 0.011$) could affect the satisfaction of inpatients. Outpatients and

Table 5 Analysis for discharged patients satisfaction

| Survey contents | Mean | Standard deviation |
|---|---|---|
| Service process | 4.46 | 5.28 |
| Medical ethics of doctors | 4.72 | 4.89 |
| Medical ethics of nurses | 4.66 | 6.21 |
| Rights of informed consent | 4.37 | 3.09 |
| Hospital environment | 4.41 | 4.77 |
| Medical effects | 4.68 | 8.82 |
| Hospital management | 4.75 | 6.69 |
| Catering service | 4.69 | 2.24 |

discharged patients with P values were 0.023 and 0.031, less than 0.05, which demonstrated the difference was statistically significant. The higher of education, the lower of satisfaction.

At the same time, through the variance analysis of the different ages, the value of F for those patients was 0.39, 2.85 and 1.3 respectively; P value was 0.091, 0.172 and 0.125, greater than 0.05, no statistically significance, which also indicated low effects of ages on satisfaction. Similarly, according to the results of variance analysis of expense payment, F value of those patients was 6.22, 9.87 and 2.36 respectively; P value was 0.025, 0.017 and 0.044, less than 0.05, and these difference was statistically significant. Meanwhile, the final results showed compared with other forms, the satisfaction of people having medical insurance was much higher.

Table 6 Analysis of variance

| sources of variation | SS | vv | MS | F | P |
|---|---|---|---|---|---|
| Between groups | 1.17 | 3 | 0.39 | 6.5 | ＜0.05 |
| Within the group | 18.98 | 296 | 0.06 | | |
| Total | 20.15 | 299 | | | |

### 2.5 Qualitative Evaluations

Some feedback was gathered through various forms such as informal symposium of workers, social and third-party supervision. Main problems are as follows. Staff irregularity was one field with largest number and proportion, accounting for 23.1%; then, unclear publicity (13.2%); doctors' bad attitude (9.9 %); irregularity in registration, de-normalization of traditional Chinese medicine (TCM) diagnosis and other services 5.5%.

## 3 Discussions

Social satisfaction evaluation system on hospital is evaluated from different points of view, so as to reflect the problems arising in the management process of a hospital more comprehensively, no doubt it is of good practical significance [15,16]. But there are also problems such as imperfect evaluation perspectives, incomplete demographic characteristics and other issues in this satisfaction evaluation system that need further improve [17].

Weak service consciousness of medical staff [18]. Some of the medical staff have not established the concept of patient-centered. These problems are caused by not only the poor quality of individual, may be also by the lack of systematic pre-service training. Ineffective communication between doctors and patients and information asymmetry [19]. Patients' incomprehension of the awareness of hospitalization costs per day and health policy are both caused by ineffective communication between doctor-patient. Besides, for the same problem, they may have different understanding, depending on the perspective being considered.

Medical measures are not fully implemented, being lack of regulation. The hospital has made a comprehensive management system for health service. But because of the lack of effective regulation and the relevant measures of rewards and punishments, the management system did not play a corresponding role. Being less satisfied with long waiting time for registration and payment, service process and medical environment may be also caused by inadequate hardware facilities.Doctor bribery from patients has become a common 'bad' social phenomenon in China. In our study, this problem is not serious, but it is worth consideration.

Strengthen standardized training for medical personnel [20]. Reinforce standardized training for resident physicians. Establish the concept of respecting for patients and dedication to them. Only those passing the assessment can work. For nurses, medical ethics is assumed as an important evaluation index from recruiting, strengthen education on medical ethics in the early process of training. Create a good atmosphere of service and improve the overall quality of nursing staff.

Enhance doctor-patient communication, expand information exchange channels. Most of the disputes and complaints are due to a lack of communication between doctor and patient, poor channel for their reflecting problems according the analysis results. It is necessary for hospitals to establish free access to telephone consultation, self-check machines and other forms to answer patients' questions timely. Set up the leading group in a unified and coordinated way that aim at measures relating to the whole group. Enhance personal responsibility for other aspects; Establish a supervision team to strengthen the implementation of related management system, and connect results with year-end assessment.

Perfect basic infrastructures and improve the medical service process. To solve the problem of long waiting for registering and payment, hospitals can try to introduce equipment for self-help registration and payment. Besides, for disordered environment in outpatient department, self-help station system is also of quite necessity, so as to strict measures to guarantee it and protect the patient's privacy. Hospitals b ring patients' daily complaints and evaluation results from the administrations into evaluating medical staff, the results of which closely influence their promotion, post employment, performance salary and regular assessment.

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# 医院社会满意度测评体系探讨与实践研究 *

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**摘要 目的:**探讨医院社会满意度测评体系,进行社会满意度调查,为医院提升社会满意度提出建议。 **方法:**采用医院探索的社会满意度测评体系,进行医院社会满意度调查。**结果:**医院社会满意度测评体系包括定量测评和定性测评。调查结果显示门诊患者中对办卡、挂号、缴费服务的满意度(3.95)、住院患者住院费用知晓度(3.87)、患者医疗费用(4.27)的满意度较低。定性评价满意度较低的主要有医患沟通和医生服务态度。**结论:**医院社会满意度测评体系能够比较系统地反映医院存在的问题。医院的总体社会满意度处在较高的水平,但针对医患沟通、基本服务态度等问题需要引起医院管理者的重视。

**关键词:**医院社会满意度;测评体系;探讨与实践
**中图分类号:**R197 **文献标识码:**A **文章编号:**1673-6273(2014)10-1969-05

* 基金项目:中国健康与养老追踪调查项目(CHARLS)国家自然科学基金项目(71130002)
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(收稿日期:2013-10-11 接受日期:2013-11-12)