

Patient Characteristics and Quality Dimensions Related to Patient Satisfaction with Health Assessment Services in a Hospital of South Taiwan

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Abstract:

To study the factors that impact patients' satisfaction with health assessment services in a hospitals in south Taiwan. Method: A cross sectional survey was used to measure patients' satisfaction with health assessment services in hospital in Kaohsiung (Republic of China, Taiwan). A validated patient's satisfaction questionnaire with a 5-points Likert scale was utilized. The questionnaire of patient satisfaction is divided into four dimensions include environment, process, professional quality, and health management quality. Finally, the overall satisfaction was also calculated. At the same time, we examined the relation between the satisfaction and patient's characteristics. Results: On 315 patients who responded to the survey, the average of total satisfaction score is 3.68, with the health assessment services they received. Patients more satisfy with the environment of health assessment department, and less with health management. Patient overall satisfaction was significantly correlate with environment (0.803), process (0.716), professional of service deliver (0.66); health management has low correlation(0.254) with overall satisfaction. Conclusion: The findings of our study demonstrated that the satisfaction of professional quality, environmental facilities, and health management may influence the overall satisfaction of medical services at present. [Wei-Kang Chang, Yang-Lian Tsai, Huei-Ting Wang, I-Chien Chen, Wei-An Lin, Chi-Ting Horng, Chiang-Hsiang Lu, Shyh-Chyang Lee. **Patient Characteristics and Quality Dimensions Related to Patient Satisfaction with Health Assessment Services in a Hospital of South Taiwan.** *Life Sci J.* 2013;10(4):2671-2674] (ISSN:1097-8135). <http://www.lifesciencesite.com>.356

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1. Introduction :

Patient satisfaction is an important health care indicator of service quality, and should pay more attention to those dissatisfaction patients, because they will do more harm to hospital's revenue. From a management perspective, there are several reasons that patient satisfaction with health care is important[1]. First at all, satisfied patients are more likely to keep a long-term relationship with a specific provider. Second, after identifying factors that make patient dissatisfaction, an organization can notice his weaknesses, and improving its management or environment. Third, satisfied patients are much adherence to medical regimens and treatment plans to get better clinical outcome. Finally, patient satisfaction measurement adds important information on hospital performance, thus improving hospital employees confidence and proud to contribute to the organization's total quality[2]. The Kaohsiung Armed Forces General Hospital is in South of Taiwan, which is a 750-bed, tertiary care hospital with all types of medical services; the annually health assessment of volunteer soldiers and officers in South of Taiwan is provided by this hospital. Patient satisfaction was one of the important indicators of the service concern in which our study was designed. The objective of the

study is to determine the factors which affect patient satisfaction during health assessment service and provide the important information for hospital management to improve the quality of service to increase patient satisfaction.

2. Patients and Methods:

After obtaining the ethical approval from the hospital Ethical Committee, a cross-sectional study was conducted from January 2013 to April 2013 in the department of health assessment service at Kaohsiung Armed Forces General Hospital. Patients completed the questionnaire which including socio-demographic factors and patient satisfaction with health assessment service. Questionnaires were distributed to the 350 patients accepted health assessment service during the study period. 315 patients returned a completely filled form. No individual identifying information was included on the surveys and participants were given no incentive to participate. The questionnaire was designed based on factors came from examination of the literature review on patients satisfaction and professional opinion of hospital doctors, administrators. It is a patient-centered on social demographics factors as gender, age group, educational background, marriage status; patient

satisfaction including environment, process, professional of service deliver , health management. Each question of patient satisfaction has five responses from "strongly satisfy" to "strongly dissatisfy " in the form of a Likert scale of items. Patient total satisfaction was measured by asking participants to rate: overall, how satisfied they were with their health assessment, 1 = very dissatisfied to 5 = very satisfied; whether they would be willing to return to the hospital for future care, 1 = not willing to 5 = very willing. The data were entered and analyzed using the statistical package for social sciences (SPSS Inc, Chicago, IL, USA), version 16. Statistical significance was determined when the p value was < 0.001, by using ANOVA analysis.

3. Results:

The patients included 222 males (7.5%) and 93 females (29.5%). The average age of patients was 28 years (SD : 6, range : 18- 45 years). 104 of patients had completed high school, 21.6% had completed collage education, and 45.4% had undergraduate degree. 38.7% married, The average length of work was 8.43 days (SD : 6.5, range : 1 – 27 years) (Table 1).

Table 1. Socio-demographic factors of the patients

| | Number | % |
|------------------------|--------|------|
| Gender | | |
| Male | 222 | 70.5 |
| Female | 93 | 29.5 |
| Age group | | |
| Under 20 | 78 | 24.8 |
| 21-30 | 102 | 32.4 |
| Over 31 | 135 | 42.8 |
| Education | | |
| High School | 104 | 33.0 |
| Collage | 68 | 21.6 |
| Undergraduate | 143 | 45.4 |
| Marriage status | | |
| Married | 122 | 38.7 |
| Un married | 193 | 61.3 |
| Working Years | | |
| Under 5 | 149 | 47.3 |
| 6-10 | 93 | 29.5 |
| 11-15 | 28 | 8.9 |
| 16-20 | 28 | 8.9 |
| Over 21 | 17 | 5.4 |

The overall satisfaction score was 3.68. There is no difference between genders. The level of satisfaction in health assessment service was high for environment, and low for health management. There are two items in health management is un-satisfy, patient point out that they feel un-satisfy for the time of completed report and reply. The results need further evaluation. (Table 2).

Table 2. Two items in health management is un-satisfy, patient point out that they feel un-satisfy for the time of completed report and reply.

| Dimension | Item | Average | S.D | |
|---|--|-------------|-------------|-------------|
| Environment | | 3.94 | 0.51 | |
| | The convenient of community | 4.14 | 0.60 | |
| | The decoration of the department of health assessment | 3.97 | 0.63 | |
| | Cleanliness of environment | 4.03 | 0.65 | |
| | Design of each space | 3.9 | 0.68 | |
| | Design of waiting area | 3.76 | 0.72 | |
| | Cleanliness of medical equipment | 4.00 | 0.60 | |
| | The equipment seen newly | 3.71 | 0.75 | |
| | The equipment is right to health assessment | 4.03 | 0.55 | |
| | Process, | | 3.63 | 0.66 |
| The convenient of arranging health assessment | | 3.85 | 0.67 | |
| The moving line is smooth | | 3.70 | 0.74 | |
| Total waiting time | | 3.10 | 1.06 | |
| Privacy | | 3.87 | 0.72 | |
| Professional of service deliver | | 3.77 | 0.58 | |
| | Process of check in | 3.78 | 0.70 | |
| | Explanation of health assessment process by Administrative staff | 3.69 | 0.75 | |
| | the service attitude of front desk staff | 3.66 | 0.78 | |
| | the service attitude of doctor | 3.65 | 0.74 | |
| | the service attitude of medical inspectors | 3.93 | 0.65 | |
| | the feeling of interact with doctor | 3.61 | 0.74 | |
| | the satisfaction of other medical inspectors | 4.01 | 0.55 | |
| | | | 3.14 | 1.27 |
| | Health management | | | |
| The time of completed report and reply | | 2.71 | 1.86 | |
| Clear explaining the value of health assessment | | 2.76 | 1.88 | |
| | The report is reflex my health status clearly | 3.96 | 0.60 | |
| Overall satisfaction | | 3.68 | 0.72 | |

Table 3. The Association Between Each dimension and Overall satisfaction

| Dimension | Environment | Process | Professional quality | Health management quality | Overall satisfaction |
|-----------|-------------|---------|----------------------|---------------------------|----------------------|
| | 1 | .751(*) | .769(*) | .131(*) | .716(*) |
| | .751(*) | 1 | .667(*) | .154(*) | .628(*) |
| | .769(*) | .667(*) | 1 | .225(*) | .803(*) |
| | .131(*) | .154(*) | .225(*) | 1 | .254(*) |
| | .716(*) | .628(*) | .803(*) | .254(*) | 1 |

* presented as $p < 0.05$

The results of table 3 showed the Pearson correlation coefficients between dimensions and overall satisfaction for health assessment. Although arguably all of dimensions relate to issues of importance to patients, the greater the correlation coefficient, the stronger the association between the attribute and overall satisfaction for health assessment. Any correlation coefficient above 0.4 is considered at least moderately strong. The 3 dimensions most strongly associated with patient satisfaction were professional of service deliver (0.803), environment (0.716), and process (0.66), and health management is less correlated with overall satisfaction (0.254). All Pearson correlation coefficients were significant (all $P < 0.05$).

4. Discussion:

In this study, we had measured the satisfaction of the patients with health assessment service for 4 dimensions: environment, process, professional quality and health management quality. professional quality is the dimension that receives most attention in discussions of quality of health care-based on how satisfied clients are with their care[3]. In Taiwan, the health care infrastructure is reasonable in terms of facilities and personnel. The real challenge is to improve staff performance and patient satisfaction in order to improve the quality of care and reduce the cost and waste[4]. Today, we recognize that quality as perceived by the health care recipient is vitally important[5]. As a result of this new focus, measurement of customer satisfaction has become equally important. There are many factors that involve patient's satisfaction, In this health assessment service at our hospital, we try to know how the customers feel about our service. Those people come to our hospital to accept health assessment service. Most of them are health, and the object of assessment is just to make sure their health. The service is free for Armed forces soldiers, offices. We find that even the service is free of charge, however, the patient satisfaction is just

slight higher than normal. There are some factors that influence patient satisfaction. The aims of this study are to find key points influence patient satisfaction, and how to improve the patient's loyalty.

We collect data on the variety of patient satisfaction and it has provided an important image in our understanding of patient satisfaction. In our study, the overall satisfaction score was 3.26. A significant relation was found between old age and high education and the patient dissatisfaction, which can give information about the group of patient who have more expect of service, and the hospital has to take more care of them during the health assessment process. Another important factor for patient dissatisfaction is about health management that include how long will they get the health report after health assessment service, the explanation of assessment result. However, the waiting time, environment, accessibility are not their concern [6]. The hospital need to concern how our customer feel, these men and women are customer. Actually, most of them are health or near health, accepting health assessment service is just to make sure they are health or something wrong. Thus it is hard time to wait report, and when they get the report, they want to know what the value of indicator meaning. These are the most important point that impact on our customer satisfaction.

We recommend that the hospital need to shorten report time, and need to notice the accuracy of test. On the other hand, every customer needs to know the health status base on their health assessment reports. We had better add the kind explanation service to our patients. The customer satisfaction is one of indication of quality of service or products. How to measure the customer satisfaction become the important and general action of enterprise in other service today, whereas the medical service do no. In the health assessment service, especially the customer satisfaction is not the routine survey. Unfortunately, the hospital managers do not pay attention to understand the patients need really. Most of the

medical institutions in still also provide the standard operating procedure(SOP) which is out-of-date [7]. After this study, we strongly suggest that to survey and comprehend the patient satisfaction routinely is necessary and helpful for medical management.

The results of our research should give the better understanding of the factors that influence the patient satisfaction and to elaborate the mechanisms through which the organizational environment impacts on client satisfaction [8].

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