To measure the satisfaction level of outpatients by Jonckheere-Terpstra

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Abstract

This research is to measure the satisfaction level of outpatients that use the services of a private hospital. The tool used in this survey is the random of sample selection of 158 people. All are not in a serious illness and can read or write. The selection used the stratified sampling which separates in three, first is 81 normal medical benefits second is 61 social security medical benefits and third is 16 immigrants medical benefits. The test of Jonckheere -Terpstra show that the general benefits are greater than the social security benefits and the social security service is greater than the immigrants benefits, general benefits (GW) > social security benefits (SW) > immigrants benefits (AW).

Keyword : satisfaction, general medical benefits, social security medical benefits, Immigrants medical benefits

Introduction

The development of the countrydepends ona a population with medical care. When the population has good health and sanitation, they will have the power to drive the country towards improvement in other fields. Therefore the developments of healthcare is constantly being adapted to be curren. The governments have initiated a program for the improvement in hospital services. These changes have the objectives for the ones using the services to have the most satisfaction. The satisfaction in services is very important to the efficiency of the work process. This research survey the satisfaction of the people who use the service of the hospital. To analyze whether this private hospital can answer the customers' needs in many ways or not, how is it satisfactory? And what is the level of satisfaction. The sample groups are out patients which are suitable because the efficiency of the hospital system can be reflected by the ones who are using the services. Applewhite[1] have suggested that satisfactory means happiness from working, the happiness of working together with others and a good attitude toward ones work. Schermerhorn[2] also suggests that satisfaction is a level of positive and negative feelings of a person for varied aspects of work, the given task, the system organization and the relationship between colleagues.

Methodology

This research is to measure the satisfaction level of 158 outpatients that use the services of a private hospital. Using the stratified sampling separated by, first is 81 normal medical benefits second is 61 social security medical benefits and third is 16 immigrants medical benefits. These patients were in the medical care in the month of October in the year of 2011, the time of services were between 8.00 a.m. to 4.00 p.m. which all in all had 37,228 patients.

A. *Formula use in this research*

1. **Jonckhere Terpstra**

Test mean of more than two populations

Test different of means in each group

$$H_0 : GW = SW = AW$$

$$H_1 : GW > SW > AW$$

$$z = \frac{J - [(N^2 - \sum_{i=1}^{k} n_i^2)/4]}{\sqrt{[N^2(2N+3) - \sum_{i=1}^{k} n_i^2(2n_i+3)]/72}}$$

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where   N =   the amount of observe in total group

n_i = the amount of observe in each group

J   = *the value of* Jonckhere Terpstra

2. Proportional Allocation

$$nW = nN_i$$

3. Total approximate

$$\hat{T}_{prop} = N\bar{y}_{prop} \text{ and } \hat{V}(T_{prop}) = \frac{(N-n)}{n}\sum_{i=1}^{L}NiS_i^2$$

4. Proportion approximate

$$p_{prop} = \sum_{i=1}^{L}\frac{a_i}{n}$$

5. variance in each level

$$V(P_{prop}) = \sum_{i=1}^{L}\frac{N_iP_iQ_i}{nN} - \sum_{i=1}^{L}\frac{N_iP_iQ_i}{N^2}, \ \frac{N_i}{N_i-1} \approx 1$$

$$n_{prop} = \frac{N\sum_{i=1}^{L}N_iS_i^2}{N^2 + E^2 + \sum_{i=1}^{L}N_iS_i^2}$$

then   general benefits s_1^2 =   0.107584

social security benefits s_2^2 =   0.1089

immigrants benefits s_3^2 =   0.0484

Therefore the sample size are 158.

and $n_i = nW_i = \dfrac{nN_i}{N}$

That means general benefits $n_1 \approx 81$

social security benefits $n_2 \approx 61$

immigrants benefits $n_3 \approx 16$

B. Instrument

The tools used ware a questionnaire to measure the satisfaction level of outpatients that use the services of a private hospital.

Meaning of mean

4.51-5.00 satisfy highest

3.51-4.50 satisfy high

2.51-3.50 satisfy medium

1.51-2.50 satisfy low

1.00-1.50 satisfy lowest

The amounts of general benefits are 81 persons, the social benefits are 61 persons and the immigrants' benefits are 16 persons.

Result

From data collection of opinion scale classified by the satis paction level of outpatients that used the services of a private hospital.

Table 1 Satisfy level of general benefits, the social benefit and the immigrants benefits

Question	Mean	SD	Level of satisfy
The officer shows the attentiveness	4.20	0.62	high
The officer has the attitude that is friendly	4.33	0.62	high
The officer pays attention to person come to use service	4.27	0.64	high
The officer is dresses clean	4.51	0.57	highest
Manners	4.36	0.60	high
Questions answered	4.10	0.66	high

Table 2 Satisfy level of three benefits in serve of doctor and nurse

Question	Mean	SD	Level of satisfy
Manners of doctor and nurse	4.32	0.55	high
Doctor pays attention to listen to symptoms	4.33	0.61	high
The doctor in using equipment or , a tools that relate to checking cures	4.47	0.61	high
Advice	4.35	0.62	high

Table 3 Compare Satisfy level of general benefits, social benefits and immigrants benefits about hospital

Ask	general benefits		social benefits		immi-grants benefits		Level of satisfy
	Mean	SD	Mean	SD	Mean	SD	
1	4.26	0.61	4.09	0.62	4.09	0.62	high
2	4.30	0.62	4.22	0.64	4.22	0.64	high
3	4.34	0.61	4.34	0.61	4.34	0.61	high
4	4.30	0.61	4.22	0.62	4.22	0.62	high

That means satisfy level in each benefits about hospital is high.

Next compare general benefits (GW), social security benefits (SW) and immigrants benefits (AW) at significant 0.05

Hypothesis:
$$H_0 : GW = SW = AW$$
$$H_1 : GW > SW > AW$$

Table 5 Compare three benefits by Jonckheere Terstra at significant 0.05

Test	α	Value of statistic (N>20)	value Sig	Result
Jonckheere Terp-stra Test For Order Alternative	0.05	- 4.02	0.00	Reject : H_0

From the test of Jonckheere-Terpstra show that the general benefits are greater than the social security benefits and the social security service is greater than the immigrants' benefits. GE > SW > AW.

Conclusion

Satisfaction of the staff services were ata high level. Care from the doctor at a high level. General medical benefits were more satisfying than the social security medical benefits. And for the immigration medical benefits, the services of the hospital staff were at a very high level. The patients were very satisfied with the enthusiasm of the staff, the staffs were friendly and took good care of the patients. Also staffs dressed appropriately and tidy which give the satisfaction level high. When use the test of Jonckheere Terpstea to aid this research it appear that this private hospital have different services with the different medical benefits. The patients might be satisfied using the services of the hospital but not the same when each medical benefit is in comparison. The results show that the general medical benefit is better than the social security medical benefits. And a social security medical benefit is better than the immigrants' medical services.

References

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