KY Publications
RESEARCH ARTICLE
Vol.4.Issue.4.2017
Oct-Dec

IJBMAS
www.ijbmas.in

INTERNATIONAL STANDARD SERIAL NUMBER INDIA
ISSN:2349-4638

INTERNATIONAL JOURNAL OF BUSINESS, MANAGEMENT AND ALLIED SCIENCES (IJBMAS)
A Peer Reviewed International Research Journal

THE IMPACT OF HOSPITAL ACCREDITATION ON THE PATIENT'S SATISFACTION OF PHARMACY DEPARTMENT SERVICES

Dr. Zuber Mujeeb Shaikh
Director, Corporate Quality Improvement, Dr. Sulaiman Al-Habib Medical Group, Riyadh-11643, Kingdom of Saudi Arabia
Email-drzuber5@yahoo.co.in

Dr. Zuber Mujeeb Shaikh

ABSTRACT

Patient satisfaction is an integral healthcare-quality ingredient. Improved communication, convenience and good manners can lead to better health service utilization and ultimately better results. Patient satisfaction is considered a means of assessing the quality of services offered. ***Objectives:*** To study the impact of National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation, India on the patient satisfaction of the Pharmacy Department Service**.** ***Methods:*** It is a quantitative, descriptive and inferential research based case study in which sample of a population was studied by structured satisfaction survey questionnaires (before and after the accreditation) in a private tertiary care hospital at Secunderabad, Telangana State, India to determine its characteristics, and it is then inferred that the population has the same or different characteristics. ***Significance of Research:*** It was observed initially before the accreditation that there was a lower patient satisfaction rate of the hospital Pharmacy Department Service, which was affecting the study hospitals' business. ***Hypothesis:*** Null Hypothesis (Ho) and Alternative Hypothesis (H1) were used and tested to compare the before and after impact of accreditation by applying to each question in the questionnaire. ***Study Design:*** The closed ended questionnaire was developed considering the Pharmacy Department Service by incorporating the six dimensions of quality, Safe, Timely, Effective, Efficient, Equitable, and Patient-centred (STEEP) and tested prior to implementing. Questionnaires were given to the patients' families for completion upon using the Pharmacy Department Service two months before and two months after the accreditation. The data were collected in order to cover all three shifts of the Pharmacy Department Service. ***Study Population:*** Simple random sampling method was selected; the researcher had included patient and families of all age groups. ***Data Collections:*** Primary data were collected from the survey questionnaires. Secondary data were collected from relevant published journals, articles, research papers, academic literature and web portals. ***Conclusion:*** The chi-square test performed at the 5% level of

significance indicates that there is a significant difference in the responses in the satisfaction with respect to the efficiency of the staff and the process of the pharmacy department services between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=185 (Satisfied=97, Highly satisfied= 88) from N=126 (Satisfied = 67, Highly satisfied= 59). The satisfaction score has improved from before accreditation compared to after accreditation which indicates that the accreditation has a positive impact on the satisfaction of the Pharmacy Department Service of the study hospital.

Key words: Patient Satisfaction, National Accreditation Board for Hospitals & Healthcare Providers (NABH) Accreditation, Pharmacy Department

I. INTRODUCTION

Quality has become a fundamental requirement for all healthcare organizations in order to survive and succeed in this competitive, demanding and challenging healthcare service industry. Today, developed and developing nations are working towards continuous quality improvement and patient safety by achieving the national and or international healthcare accreditation and providing safe, effective, patient-centred, timely, efficient and equitable health care services to all their patients, families and caretakers. Accreditation of a health care organization is an external evaluation of the level of compliance against a set of organizational standards. Healthcare accreditation standards are advocated as an important means of improving structure, process and outcome [1]. Pharmacy services have been increasingly extended beyond simple medication supply to become a more patient-centered and caring help. Pharmacists work in harmony with other healthcare providers to optimize patients' quality of life and to achieve the best clinical outcome. Good professional relationship and communication must be established and maintained between the pharmacist and the patient to attain this goal. The pharmacist also should keep an appropriate caring attitude and apply his/her pharmacotherapy knowledge and accomplishment as the medication expert to improve the patients' health and well-being.

II. REVIEW OF LITERATURE

The increased international focus on improving patient outcomes, safety and quality of care has led stakeholders, policy makers and health care provider organizations adopt standardized processes for measuring health care systems. Patient satisfaction has become a key criterion by which the quality of health care services is evaluated. The literature emphasizes that patients who are satisfied with the provision of health care tend to be more compliant with their treatment plan, maintain their follow up visits; and are more willing to recommend the hospital to others [2]. The literature emphasizes that hospital accreditation and patient satisfaction are both considered important quality indicators of health care delivered [3]. The results of patient satisfaction surveys can be used to monitor the quality of health care provided [4], to find out any shortages, to provide the necessary interventions, and as a valuable source of strategic planning of health services [5].

High satisfaction promotes positive health behaviors, such as compliance and continuity with providers. Patients who are gratified with their overall care are likely to take medicines properly and less probable to change from one health care professional to another [6]. Patient satisfaction is about personally evaluating or measuring a service or product perceived to be valuable and beneficial. Patient satisfaction is becoming a popular health care quality indicator in which pharmaceutical services are an indispensable component [7]. Measuring patient satisfaction is an approach to keying out and meeting patient demands [8].

Providing better access to quality pharmacies is a means to improve patient satisfaction with health care. In a competitive healthcare market, pharmacists should provide competent services in a satisfactory way to assure service continuity. As healthcare moves toward an outcome-based (e.g.

Patient satisfaction) model outcomes are significant components to patients who may wish to see healthcare staff who develop more beneficial outcomes or greater patient satisfaction. As a result, pharmacists demonstrating greater patient satisfaction may be at a competitive advantage [9].

III. DATA ANALYSIS

Table1: Patient participation before and after accreditation

Group	Frequency	Percentage
Before Accreditation	200	50.0
After Accreditation	200	50.0
Total	400	100.0

Table 1 depicts that there were 200 patients participated before accreditation and 200 patients participated after accreditation. There was no improvement in the participation of patients after accreditation.

Table 2: Group and Age distribution

Group	Age					Chi-square test statistic, p-value
	<18yrs	18-25yrs	25-55yrs	55-65yrs	>65yrs	
Before Accreditation	16	67	62	38	17	0.278, 0.991
After Accreditation	18	69	61	35	17	
Total	34	136	123	73	34	

Hypothesis:

H_0: There is no significant difference in the Age categories between before the accreditation group and after accreditation group

H_1: There is a significant difference in the Age categories between before the accreditation group and after accreditation group

Table 2 depicts that at the 5 % level of significance, the chi square test performed indicates, there is no significant difference between the age distribution between before and after accreditation groups. Hence H_0 is accepted and H_1 is rejected.

Table 3: Group and Gender Distribution

Group	Gender		Chi-square test statistic, p-value
	Male	Female	
Before Accreditation	119	81	1.465, 0.226
After Accreditation	107	93	
Total	226	174	

Hypothesis:

H_0: There is no significant difference in the gender distribution between before accreditation group and after accreditation group

H_1: There is significant difference in the gender distribution between before accreditation group and after accreditation group

Table 3 depicts that at the 5 % level of significance, the chi square test performed indicates, there is no significant difference between the gender distribution between before and after accreditation groups. Hence H_0 is accepted and H_1 is rejected.

Table 4. Group and geographical states (of India) Distribution

Group	Geographical states		Chi-square test statistic, p-value
	Same State	Other States	
Before Accreditation	103	97	0.251, 0.617
After Accreditation	108	92	
Total	211	189	

Hypothesis:

H_0: There is no significant difference in the geographical states of patients between before the accreditation group and after accreditation group

H_1: There is a significant difference in the geographical states of patients between before the accreditation group and after accreditation group

Table 4 depicts that at the 5 % level of significance, the chi square test performed indicates, there is no significant difference between geographic and accreditation groups. Hence H_0 is accepted and H_1 is rejected.

Table 5. Distribution of patients who speak Telugu, Non-Telugu and Group

Group	Language		Chi-square test statistic, p-value
	Telugu	Non-Telugu	
Before Accreditation	127	73	0.396, 0.529
After Accreditation	133	67	
Total	260	140	

Hypothesis:

H_0: There is no significant difference in the language patients speak between before the accreditation group and after accreditation group

H_1: There is a significant difference in the language patients speak between before the accreditation group and after accreditation group

Table 5 depicts that at the 5 % level of significance, the chi square test performed indicates, there is no significant difference between those who speak Telugu and those don't speak people who have visited the hospital and before and after accreditation groups. Hence H_0 is accepted and H_1 is rejected.

Table 6: Groups and Type of visits

Groups	Type of visits			Chi-square test statistic, p-value
	In-Patient Department	Out-Patient Department	Emergency Department	
Before Accreditation	27	127	46	6.481, **0.039**
After Accreditation	46	108	46	
Total	73	235	92	

Hypothesis:

H_0: There is no significant difference in the type of hospital visits between before accreditation group and after accreditation group

H_1: There is a significant difference in the type of hospital visits between before the accreditation group and after accreditation group

Table 6 depicts that at the 5 % level of significance, the chi square test performed indicates, there is no significant difference in the type of hospital visits between before and after accreditation groups. Hence H_0 is accepted and H_1 is rejected.

Table7. Type of payment and Group

Group	Type of payment		Chi-Square test statistic, p-value
	Cash	Insurance & Government	
Before Accreditation	62	138	6.636, **0.036**
After Accreditation	71	129	
Total	133	267	

Hypothesis:

H_0: There is no significant difference in the type of payment made between before the accreditation group and after accreditation group

H_1: There is a significant difference in the type of payment made between before the accreditation group and after accreditation group

Table 7 depicts that at the 5 % level of significance, the chi square test performed indicates, there is no significant difference between the type of payment between before and after accreditation groups. Hence H_0 is accepted and H_1 is rejected.

Table 8: Satisfaction with respect to the waiting time before accreditation group and after accreditation group

Group	How satisfied were you with the waiting time?					Chi-square test statistic, p-value
	Highly Dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly Satisfied	
Before Accreditation	31	39	6	67	57	47.998, **<0.001**
After Accreditation	6	8	6	91	89	
Total	37	47	12	158	146	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses to satisfaction with respect to the waiting time before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses to satisfaction with respect to the waiting time before the accreditation group and after accreditation group

Table 8 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the waiting time between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=180 (Satisfied=91, Highly satisfied= 89) from N=154 (Satisfied = 67, Highly satisfied= 57). Hence H_0 is rejected and H_1 is accepted.

Table 9: satisfaction with respect to the availability of medication in the pharmacy before accreditation group and after accreditation group

Group	How satisfied were you with the availability of medication in the pharmacy?					Chi square, p-value
	Highly dissatisfied	Dissatisfied	either satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	34	38	7	58	63	51.851, **<0.001**
After Accreditation	4	10	6	91	89	
Total	38	48	13	149	152	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the availability of medication in the pharmacy before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the availability of medication in the pharmacy before the accreditation group and after accreditation group

Table 9 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the availability of medication in the pharmacy between before and after accreditation with p-value <0.001. The responses of

satisfaction have improved from N=180 (Satisfied=91, Highly satisfied= 89) from N=121 (Satisfied = 58, Highly satisfied= 63). Hence H_0 is rejected and H_1 is accepted.

Table 10. Satisfaction with respect to the medication and supplies dispensed before accreditation group and after accreditation group

Groups	How satisfied were you with the medication and supplies dispensed?					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	38	34	9	66	53	55.294, **<0.001**
After Accreditation	5	8	6	93	88	
Total	43	42	15	159	141	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the medication and supplies dispensed before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the medication and supplies dispensed before the accreditation group and after accreditation group

Table 10 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the medication and supplies dispensed between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=181 (Satisfied=93, Highly satisfied= 88) from N=119 (Satisfied = 66, Highly satisfied= 53). Hence H_0 is rejected and H_1 is accepted.

Table 11. Satisfaction with respect to the cleanliness of the department before accreditation group and after accreditation group

Groups	How satisfied were you with the cleanliness of the department?					Chi square, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	35	31	10	64	60	44.347, **<0.001**
After Accreditation	7	8	5	89	91	
Total	42	39	15	153	151	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the cleanliness of the department before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the cleanliness of the department before the accreditation group and after accreditation group

Table 11 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the cleanliness of the department between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=180 (Satisfied=89, Highly satisfied= 91) from N=124 (Satisfied = 64, Highly satisfied= 60). Hence H_0 is rejected and H_1 is accepted.

Table 12. Satisfaction with respect to the explanation of medication provided by the pharmacist before accreditation group and after accreditation group

Groups	How satisfied were you with the explanation of medication provided by the pharmacist?					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	30	43	7	67	53	69.018, **<0.001**
After Accreditation	4	3	8	96	89	
Total	34	46	15	163	142	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the explanation of medication provided by the pharmacist before accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the explanation of medication provided by the pharmacist before the accreditation group and after accreditation group

Table 12 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the explanation of medication provided by the pharmacist between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=185 (Satisfied=96, Highly satisfied= 89) from N=120 (Satisfied = 67, Highly satisfied= 53). Hence H_0 is rejected and H_1 is accepted.

Table 13. Satisfaction with respect to the efforts put in by the pharmacist to help improve the health or stay healthy before accreditation group and after accreditation group

Groups	How satisfied were you with the efforts put in by the pharmacist to help you/ patient improve your health or stay healthy?					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	32	39	9	59	61	61.177, **<0.001**
After Accreditation	5	5	5	96	89	
Total	37	44	14	155	150	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the efforts put in by the pharmacist to help improve the health or stay healthy before an accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the efforts put in by the pharmacist to help improve the health or stay healthy before an accreditation group and after accreditation group

Table 13 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the efforts put in by the pharmacist to help improve the health or stay healthy between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=185 (Satisfied=96, Highly satisfied= 89) from N=120 (Satisfied = 59, Highly satisfied= 61). Hence H_0 is rejected and H_1 is accepted.

Table14. Satisfaction with respect to the explanation of the side effect of the medication before accreditation group and after accreditation group

Groups	How satisfied were you with the explanation of the side effect of the medication?					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	40	34	5	62	59	57.859, **<0.001**
After Accreditation	6	6	4	95	89	
Total	46	40	9	157	148	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the explanation of the side effect of the medication before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the explanation of the side effect of the medication before the accreditation group and after accreditation group

Table 14 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the explanation of the side effect of the medication between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=184 (Satisfied=95, Highly satisfied= 89) from N=121 (Satisfied = 62, Highly satisfied= 59). Hence H_0 is rejected and H_1 is accepted.

Table 15. Satisfaction with respect to the privacy of conversation with the pharmacist before accreditation group and after accreditation group

Groups	How satisfied were you with the privacy of conversation with the pharmacist?					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	33	28	13	71	55	40.935, **<0.001**
After Accreditation	7	7	7	94	85	
Total	40	35	20	165	140	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the privacy of conversation with the pharmacist before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the privacy of conversation with the pharmacist before the accreditation group and after accreditation group

Table 15 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the explanation of the side effect of the medication between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=179 (Satisfied=94, Highly satisfied= 85) from N=126 (Satisfied = 71, Highly satisfied= 55). Hence H_0 is rejected and H_1 is accepted.

Table 16. Satisfaction with respect to the efficiency of the staff and process of the pharmacy department before accreditation group and after accreditation group

Groups	How satisfied were you with regards to the efficiency of the staff and process of the pharmacy department?)					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	32	35	14	51	68	55.018, **<0.001**
After Accreditation	6	5	9	89	91	
Total	38	40	23	140	159	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the efficiency of the staff and the process of the pharmacy department before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the efficiency of the staff and the process of the pharmacy department before the accreditation group and after accreditation group

Table 16 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the efficiency of the staff and the process of the pharmacy department between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=180 (Satisfied=89, Highly satisfied= 91) from N=119 (Satisfied = 51, Highly satisfied= 68). Hence H_0 is rejected and H_1 is accepted.

Table 17. Satisfaction with respect to the overall experience in the pharmacy before accreditation group and after accreditation group

Groups	How satisfied were you with the overall experience in the pharmacy?					Chi-square test statistic, p-value
	Highly dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Highly satisfied	
Before Accreditation	35	29	10	67	59	53.791, **<0.001**
After Accreditation	4	5	6	97	88	
Total	39	34	16	164	147	

p-value in bold represents significant test with p-value<0.05

Hypothesis:

H_0: There is no significant difference in the responses of satisfaction with respect to the overall experience in the pharmacy before the accreditation group and after accreditation group

H_1: There is a significant difference in the responses of satisfaction with respect to the overall experience in the pharmacy before the accreditation group and after accreditation group

Table 17 depicts that at the 5 % level of significance, the chi square test results indicate that there is a significant difference in the responses in the satisfaction with respect to the efficiency of the staff and the process of the pharmacy department between before and after accreditation with p-value <0.001. The responses of satisfaction have improved from N=185 (Satisfied=97, Highly satisfied= 88) from N=126 (Satisfied = 67, Highly satisfied= 59). Hence H_0 is rejected and H_1 is accepted.

IV. CONCLUSION

The responses of satisfaction have improved from N=185 (Satisfied=97, Highly satisfied= 88) from N=126 (Satisfied = 67, Highly satisfied= 59). The satisfaction score has improved from before accreditation compared to after accreditation which indicates that the accreditation has a positive impact on the satisfaction of the Pharmacy Department Service of the study hospital. This indicates that the accreditation has a positive impact on the satisfaction of Pharmacy Department Services of the study hospital.

V. LIMITATIONS OF THE STUDY

This study is limited to the Pharmacy Department Services of the study hospital and for a limited duration (before two months and after two months of accreditation) only.

VI. DIRECTIONS FOR FUTURE RESEARCH

In future, such research should be conducted to study the impact of national and international accreditations on the other services of the hospitals over a large period of time.

VII. SOURCES OF FUNDING FOR THE STUDY

This research was self financed by the author himself.

VIII. IMPLICATIONS OF THE FINDINGS

The accreditation has a positive impact on the satisfaction of Pharmacy Department Services of the study hospital.

IX. ACKNOWLEDGEMENT

The author would like to thank the leadership, patients, families and staff of Krishna Institute of Medical Science (KIMS), Secunderabad, Telangana State, India, who had participated in this research study. KIMS Hospital is a 750-bed multi-super Specialty hospital with ISO 9000:2001, NABL and NABH accreditations, strategically located on a sprawling 5-acre campus in the heart of the city, having accessibility from all major landmarks and as well from all major public transport junctions, serving all classes of the population and international patients.

X. DISCLAIMER

This publication contains information obtained from authentic and highly regarded sources. Reasonable effort has been made to publish reliable data and information, but the author and the publisher cannot assume responsibility for the validity of all materials or for the consequences of the use.

REFERENCES

[1] Lluis Bohigas et all. A comparative analysis of surveyors from six hospital accreditation programmes and a consideration of the related management issues, International Journal for Quality in Health Cane 1998; Volume 10, Number I: pp. 7-13.

[2] Saeed AA, Mohammed BA, Magzoub ME, Al-Doghaither AH (2001).Satisfaction and correlates of patients' satisfaction with physicians' services in primary health care centers. Saud Med J. Mar; 22(3): 262-7.

[3] Heuer AJ (2004). Hospital accreditation and patient satisfaction: testing the relationship. J Healthc Qual. Jan-Feb; 26(1):46-51.

[4] Al-Habdan I (2004). Survy of satisfaction of patients attending pediatric orthopedic clinics at King Fahd Hospital of the University, al-Khobar. Saudi Med. J. 25(3):388-389.

[5] Saeed AA, Mohamed BA (2002). Patients' perspective on factors affecting utilization of primary health care centers in Riyadh, Saudi Arabia. Saudi Medical J. 23(10): 1237-1242.

[6] Briesacher, B. and Corey, R. (1997), "Patient satisfaction with pharmaceutical services at independent and chain pharmacies", American Journal of Health-system Pharmacy, Vol. 54 No. 5, pp. 531-536.

[7] Schommer, J. and Kucukarslan, S. (1997), "Measuring patient satisfaction with pharmaceutical services", American Journal of Health-System Pharmacy, Vol. 54 No. 23, pp. 2721-2732.

[8] Lang, J.R. and Fullerton, S.D. (1992), "The components of satisfaction with outpatient pharmacy services", Health Mark Q, Vol. 10 Nos 1-2, pp. 143-154.

[9] Larson, N.L., Rovers, J.P. and MacKeigan, L.D. (2002), "Patient satisfaction with pharmaceutical care: update of a validated instrument", Journal of the American Pharmaceutical Association, Vol. 42 No. 1, pp. 44-50.