Caregivers’ Satisfaction of Healthcare Delivery at Paediatric Clinics of Universiti Kebangsaan Malaysia Medical Centre in 2009


*Department of Community Health, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, **Faculty of Medicine, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia

SUMMARY

Patients’ satisfaction has become increasingly important as patients evaluate healthcare services for both medical cost and quality. The purpose of this study was to measure the prevalence and the factors influencing caregivers’ satisfaction. A cross sectional study of 262 respondents using universal sampling method was conducted at the paediatric clinics of Universiti Kebangsaan Malaysia Medical Centre (UKMMC). Overall, 90.5% were satisfied with the services provided. Satisfaction rates based on various healthcare delivery domains were: 95.0% for communication skills, 88.5% for interpersonal aspect, 83.6% for technical quality, 82.1% for financial aspect, 72.9% for time spent with doctors and 64.9% for ease of contact. This study shows that the caregivers (an unpaid person who helps a person cope with disease) were highly satisfied with the communicational aspect delivered by the clinic. However, there is still room for improvement on ease of contact domain and waiting time in order to produce high quality service.

KEY WORDS:
Caregivers’ satisfaction, Paediatrics, Out-patient clinics, Healthcare system

INTRODUCTION

Patients’ satisfaction is a representative method to capture their perspectives of their experiences with a healthcare provider or services that involve with their healthcare plan. Patients’ satisfaction has become increasingly important as they judge physicians on both cost and quality. Their perceptions are beneficial in benchmarking, policy making, resources allocation, shaping physician behavior, measurement of changes and identifying patients’ dissatisfaction. Patients’ satisfaction surveys not only provide feedback to the performance and facilitate quality improvement; they also act as a stage for healthcare consumers to express their concerns.

The quality of healthcare services is improved following reviews of patients’ satisfaction surveys, redesign and implementation of policies by healthcare providers. However, results of satisfaction surveys remain underused by healthcare providers in hospital despite a great interest in it. Demand from consumers for higher quality healthcare services has been increasing with the high economic growth.

According to the WHO GPE Discussion Paper series: No. 32, there are seven domains to assess patients’ satisfaction; namely general satisfaction, technical quality, interpersonal aspects, communication, financial aspects, time spent with doctor and the ease of contact or availability. Previous studies have shown the importance of these domains in influencing the patients’ satisfaction. The doctors’ ability to achieve a correct diagnosis and craft an effective treatment plan are no doubt important, hence higher technical quality leads to higher satisfaction. Communication issues and interpersonal aspects are important for parents’ satisfaction towards children mental health services. Doctor-patient relationship is also closely related to patient satisfaction. Time spent with doctors’ plays a role in patient satisfaction whereby satisfaction rate improves as visit length increases.

Apart from these healthcare delivery domains, patients’ characteristics, which include age, gender, socioeconomic status may vary the hierarchy of different elements in healthcare delivery systems. Older patients tend to be more satisfied. The role of socioeconomic status in affecting patients’ satisfaction remains vague. The aim of this study was to obtain the prevalence and factors influencing satisfaction among caregivers in the paediatrics clinic at Universiti Kebangsaan Malaysia Medical Centre (UKMMC).

MATERIALS AND METHODS

This is a cross sectional study at paediatrics clinics, University Kebangsaan Malaysia Medical Centre and data was collected from February 2009 to May 2009 using universal sampling method (all caregivers were asked). The inclusion criteria were Malaysian citizens, caregivers who gave their consent and caregivers who at least had one previous appointment. A caregiver is defined as an unpaid person (eg. parent) who helps a person with physical care coping with disease. The exclusion criteria were caregivers who refused to participate. Caregivers assessed the healthcare service delivered by the clinic based on their experiences.

Sample size was calculated based on Lwanga et al 1991, for a Confident Interval of 95%, and prevalence of satisfaction from a previous study of 60.5%. The calculated minimum sample size was 368 caregivers.

This article was accepted: 15 June 2011
Corresponding Author: Aniza Ismail, Department of Community Health, Universiti Kebangsaan Malaysia Medical Centre, Kuala Lumpur, Malaysia
Email: draniza@gmail.com
Data was collected by a guided self-administered questionnaire, using the modified Ware's Patient Satisfaction Questionnaire (Ware PSQ) in both English and Bahasa Malaysia. The Bahasa Malaysia version was translated using a certified translator and back to back translation has been carried out. The questionnaire consists of seven domains (50 questions); overall satisfaction domain (6 questions) and the six healthcare domains (technical quality; 10 questions, interpersonal aspect; 7 questions, communication; 5 questions, financial aspect; 8 questions, time spent with a doctor; 2 questions and ease of contact; 12 questions). Socio demographic data (age, gender, race, level of education, income, relationship of caregivers and patient) was also collected.

Data was analyzed using the Chi-square test, Student t-test, Mann-Whitney U test and Pearson’s correlation test with Statistical Package for Social Science (SPSS) program version 13.

RESULTS
The total number of respondents in this study was 262 caregivers with a response rate of 99.3%. Out of 262 respondents, 237 (90.5%) respondents were satisfied with services provided whereas 25 (9.5%) respondents were dissatisfied. The socio demographic data of respondents is summarized in Table I.

The level of general satisfaction recorded among caregivers when measured by different paediatric specialty clinics was 100% for the spinal bifida clinic, diabetes and obesity clinic, genetic clinic and dietary clinic. This was followed by neurology clinic (95.5%), endocrine clinic (94.7%), surgery clinic (92.5%), oncology clinic (91.7%), cardiology clinic (90.9%), psychiatry clinic (88.2%), respiratory clinic (87.5%), general paediatric clinic (86.7%), special care neonates clinic (85.7%) and nephrology clinic (83.3%).

Table II demonstrates that communication domain had highest mean score (19.85+2.33), followed by time spent with doctor (7.41+1.37), interpersonal aspect (24.5+2.98), financial domain (27.98+4.11), technical quality (34.22+3.91) and ease of contact (38.58+6.06). However the overall satisfaction is 17.80+2.76.

Table III shows the analysis for variables of socio demographic factor and mean of general satisfaction. The result indicates significant association between mean of general satisfaction with low educational level, low income and elderly caregivers with p value < 0.05. There were no significant associations between gender, race and relationship of caregiver with patient (p value > 0.05).

There was higher mean overall satisfaction for caregivers with lower educational level compared to caregivers with higher educational level with p <0.05. The median of income was lower among caregivers who were satisfied (RM2500 with IQR RM3700) compared to the caregivers who did not satisfied (RM3500 with IQR RM3000) with p = 0.001. Significant association between level of overall satisfaction and family income of caregivers were also noted. However, there was no significant relationship between age, gender, race, and relationship of caregiver with patient (p value >0.05).

The correlation of overall satisfaction with healthcare delivery domains are shown in Table IV. All domains are directly proportional to overall satisfaction. The correlation was moderate in ease of contact, technical quality and interpersonal domains (r 0.402-0.479). Correlation was weak in the other domains.

58 caregivers gave additional comments and 15 of them were complimentary. However, the majority gave comments they was dissatisfied with ease of contact domain (29 comments), followed by facilities (6 comments), communication (3 comments), interpersonal aspects (3 comments), and miscellaneous things (2 comments).

### Table I: Frequency distribution of sociodemographic of caregivers

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>80</td>
<td>30.5</td>
</tr>
<tr>
<td>Female</td>
<td>182</td>
<td>69.5</td>
</tr>
<tr>
<td>Age (Years)</td>
<td>39.0*</td>
<td>8.045**</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malay</td>
<td>182</td>
<td>69.5</td>
</tr>
<tr>
<td>Chinese</td>
<td>52</td>
<td>19.8</td>
</tr>
<tr>
<td>Indian</td>
<td>24</td>
<td>9.2</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Educational Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No formal education</td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Primary school</td>
<td>12</td>
<td>4.6</td>
</tr>
<tr>
<td>Secondary school</td>
<td>139</td>
<td>53.1</td>
</tr>
<tr>
<td>Higher education</td>
<td>107</td>
<td>40.8</td>
</tr>
<tr>
<td>Income (RM)</td>
<td>3000.00***</td>
<td>3000.00****</td>
</tr>
<tr>
<td>Relationship with Patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological parent</td>
<td>258</td>
<td>98.5</td>
</tr>
<tr>
<td>Non-biological parent</td>
<td>4</td>
<td>1.5</td>
</tr>
</tbody>
</table>

* mean  
**standard deviation  
***median  
****Inter-quartile range  
+ Will be collapse into Malay and Non-malay groups in bivariate analysis  
++Will be collapse into low educational level and high educational level in bivariate analysis
DISCUSSION

The objective of this study was to determine factors that contribute to caregivers’ satisfaction in paediatric clinics. It was found in a previous study that females have less general satisfaction compared to male caregivers because they have higher expectation of health care services. Despite having this fact, our studies show no significant association between gender and general satisfaction. However, it is still debatable whereby one of the studies found that males tend to be more satisfied than females towards the healthcare services.

This study also shows that age of caregivers had no significant association with their general satisfaction towards health care services and this is similar with a previous study. The same result can be concluded when compared between Malay and non-Malay though satisfactory level among Malay was high. One of the possible explanations for this finding was because the number of non-Malay caregivers was less compared to Malay caregivers and so it cannot represent the ethnicity as a whole.

Caregivers with higher education were less satisfied with the service provided by the pediatric clinics. Caregivers with higher education may have higher expectations on healthcare services, so when these preconceived expectations were not met, they are not satisfied. Meanwhile, family income had no significant association with general satisfaction. This study took place in urban area, hence there is not much difference in term of expectation towards the healthcare service even they have different income. The difference in economic development in the countries of each study might contribute to these inconsistent findings.

Results from our study shows that all the respondents who have general satisfaction were satisfied with all domains. There was a significant association between general satisfaction and technical quality domain, interpersonal domain, communication domain, time spent with the doctor domain, ease of contact domain and financial domain. As the healthcare delivery domains were the modifiable variables, improving the quality in these domains...
will secure a higher satisfaction level and create a positive
transference from the caregivers. 

Based on the previous study, communication was a strong
and important factor to determine the satisfaction among the
patient\(^{24}\). The same result was obtained from this study
whereby the caregivers were most satisfied with the
communication domain compared to other domains. The
most probable reason for this finding was that the doctors in
a teaching hospital was more informative and sensitive
towards the caregivers concerns, since careful listening to
patient’s complaint is an important characteristic of an ideal
physician\(^{25}\).

Caregivers were least satisfied with ease of contact domain
especially for items referring to operating hours and waiting
time. Long waiting time was associated with decreased
patient satisfaction\(^{22}\), and the availability of doctors during
office hours also affected patients’ satisfaction\(^{25}\). The fact that
Teaching hospitals were dealing with more complicated
health problems than those in non-teaching hospitals contributes to the increase of waiting hours and this creates
issue among caregivers who live far from the hospital\(^{25}\).

A quarter of the comments were complimentary comments
which support the high general satisfaction among the
caregivers. However, most negative comments by the
caregivers were related to long waiting time and doctors not
being punctual. Caregivers also demand more specialists on
duty so that they have greater contact with specialists.

Other than that, they also requested staff to be more friendly.
Caregivers also hope to be informed earlier should there be
any cancellation of appointment or delay in clinic operating
time. Again, this shows the significance of communication
and interpersonal aspects affecting the caregivers’
satisfaction.

Caregivers also complained about pharmacists. They claimed
that pharmacist refused to provide adequate supply of
medicine prescribed without giving a valid explanations. As
UKMMC is a national referral centre, many patients travelled
from a long distance and it is inconvenient for caregivers as
they have to come back and forth frequently to get the
medicine. Pharmacists should explain clearly to caregivers if
the drugs were prohibited to be prescribed in large amount.
There was also a suggestion to provide a mini library for
children.

Our research has its own limitations. In order to get more
respondents, our main constraint was time as the caregivers
have to catch up with several appointments involving
different disciplines in a short period of time, for example in
haematological and surgical cases. Therefore there were
incomplete questionnaires where some caregivers were
unable to finish answering all questions.

CONCLUSION

The majority of the caregivers were satisfied with the
healthcare services delivered in the paediatrics clinics,
UKMMC. Satisfaction levels were high in all healthcare
delivery domains. The educational level and all healthcare
delivery domains had significant association with the level of
general satisfaction. Even though caregivers were satisfied
with all healthcare delivery domains, there are still room for
improvements on ease of contact domain and waiting time.
Efforts should also be made in reducing the waiting time and
to improve on punctuality. The staff should inform the
caregivers for any delay or cancellation of appointment so
that caregivers can manage their time efficiently. Alternatively, the clinic may provide an interesting waiting
area by switching on the television or audio video
equipments, or to have a reading corner for both caregivers
and children so that they can have some activities that can be
done while waiting for their turn.

ACKNOWLEDGMENTS

We would like to express our appreciation to Associate
Professor Dr. Bilkish Abdul Aziz, Head of Paediatrics
Department UKMMC, staffs of paediatric clinic UKMMC, all
patients and caregivers involved in the study.

REFERENCES

1. Hileman J, Lackey N, Hassanein R. Identifying the needs of home
771-77.
2. Harris LE, Swindle RW, Mungai SM, Weinberger M, Tierney WM.
Measuring patient satisfaction for quality improvement. Med Care. 1999;
3. Thomas AM. Patient Satisfaction: Measuring the art of Medicine. JAMA.
4. Delbanco TL. Quality of care through the patient’s eyes. BMJ. 1996; 313:
832-35.
5. Stratmann WC, Zastowny TR, Bayer LR, Adams EH, Black GS, Fry PA.
Patient satisfaction surveys and multicollinearity. Qual Manage Health
6. Cleary PD. The increasing importance of patient surveys. BMJ. 1999; 319:
720-23.
7. Rogers G, Smith DP. Reporting comparative results from hospital patient
results of patient satisfaction surveys by care providers in a French
Representative Office in Malaysia 2009.
10. WHO. A framework for measuring responsiveness. GPE Discussion Paper
11. Otani K, Kurz RS, Harris LE. Managing primary care using patient
311-24.
Georgetown University, National Technical Assistance Center for
13. Buller MK, Buller DB. Physicians’ communication styles and patient
satisfaction with time spent with their physician. J Fam Pract. 1998; 47:
133-37.
15. Baker R. Pragmatic model of patient satisfaction in general practice:
16. Hayes E. Nurse practitioners and managed care: Patient satisfaction and
intention to adhere to nurse practitioner plan of care. J Am Acad Nurse
18. Lwanga SK, Lemeshow S. Sample size determination in health studies: A
19. Sunyiay A.A. Laporan Tesis Sarjana, Kajian Kepuasan Pelanggan di Klinik-
Klinik Dengan dan Tanpa Status Pensijilan ISO 9000 Di Negeri Sembilan.
2007. UKM


