

**FACTORS INFLUENCING PATIENT SATISFACTION IN A FREE
HEALTH CARE SYSTEM IN THE NATIONAL REFERRAL
HOSPITAL (NRH), THIMPHU, BHUTAN**



Tapas Gurung

**A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health in Health Systems Development**

**College of Public Health
Chulalongkorn University**

Academic Year 2003

ISBN-974-9599-38-1

Copyright of Chulalongkorn University


Thesis Title : Factors Influencing Patient Satisfaction in a Free Health Care System in The National Referral Hospital (NRH), Thimphu, Bhutan

By : Dr. Tapas Gurung


Program : Health Systems Development

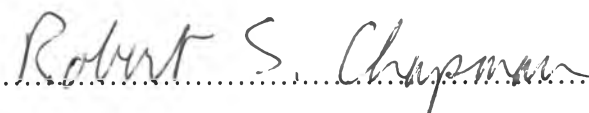
Thesis Advisor : Robert Sedgwick Chapman, M.D., M.P.H.

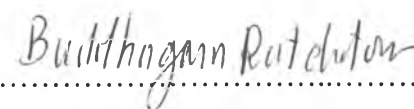
Accepted by the College of Public Health, Chulalongkorn University, Bangkok Thailand in Partial Fulfillment of the Requirements for the Master's Degree

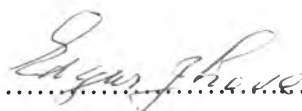
 Acting Dean of the College of Public Health
(Associate Professor Prida Tasanapradit, M.D.)

THESIS COMMITTEE

 Chairman
(Associate Professor Ong-arj Viputsiri, M.D., Dr. P.H.)

 Thesis Advisor
(Robert Sedgwick Chapman, M.D., M.P.H.)

 Member
(Associate Professor Buddhagarn Rutchatorn, Ph.D.)

 Member
(Professor Edgar J. Love, M.D., Ph.D.)

PH: 032393 : MAJOR HEALTH SYSTEMS DEVELOPMENT
 KEY WORDS : INPATIENT SATISFACTION / DOMAINS OF CARE / ALL
 WARDS/THE NRH
 TAPAS GURUNG: FACTORS INFLUENCING PATIENT
 SATISFACTION IN A FREE HEALTH CARE SYSTEM IN THE
 NATIONAL REFERRAL HOSPITAL, THIMPHU, BHUTAN.
 THESIS ADVISOR: ROBERT SEDGWICK CHAPMAN, M.D.,
 M.P.H., 130pp. ISBN 974-9599-38-1.

Apparent rise in patient dissatisfaction at The National Referral Hospital at Thimphu, Bhutan, warranted a study to find out levels and factors for dissatisfaction. A cross sectional hospital-based study was conducted involving 180 inpatients from all wards and cabins in January-February 2004. An interviewer administered questionnaire survey on patients, 5 key informants were interviewed and a short questionnaire survey of physicians were conducted. Mostly young, both genders represented equally, 61.1% of study population was illiterate. 66.1% was poor with a monthly income below Ngultrum 5000 (about US\$110), 35% were farmers and though a referral hospital, 56% patients were self-admitted patients mainly for acute conditions (58.3%). Overall, there were 91.7% satisfied and 8.3% dissatisfied patients. Among wards, the cabin had the highest overall satisfaction at 66.7%, followed by EENT, surgical and maternity at 64.7%, 62.1% and 60.0% respectively. Wardwise differences were statistically significant ($p=0.029$). Age, ethnicity and duration of hospital stay had statistically significant association with accessibility ($p=0.003$, 0.041 and 0.014 respectively); referral status and admission history with comfort in ward ($p=0.026$ and 0.021 respectively). Gender, referral status and admission history had significant associations with waiting time ($p=0.047$, 0.009 and 0.007 respectively). Nurses' competence and ethnicity had significant associations with disease status and doctor patient relationship ($p=0.046$ and 0.045 respectively). Provider-related domains were more important for patient satisfaction than were hospital milieu-related domains ($p < 0.001$). Free health care, kind and helpful staff, their competencies, good nursing and medical care, reputation of this apex hospital were some of the main factors for satisfaction. Visitor restrictions, long waiting time, inadequate communication between physicians and patients were some of the factors highlighted for dissatisfaction. Lack of adequate staff was identified as one of the main bottlenecks for the NRH in not being able to meet patients' expectations. Lack of staff also impeded physicians from practicing "Service with a Humane Face". Encouraging a good doctor-patient relationship, reviewing visitor restriction rules and hospital diet, and provision of a decent resting place for patient attendants/companions at night were some of the main recommendations worth considering.

Field of study: Health Systems Development

Student's signature.....

Academic Year: 2003

Advisor's signature.....



The image shows two handwritten signatures. The top signature is in cursive and appears to be 'Tapas Gurung'. The bottom signature is also in cursive and appears to be 'Robert S. Chapman'.

ACKNOWLEDGEMENTS

This academic work would not have been accomplished without the support and guidance of a number of persons. I hereby extend my sincere and most humble acknowledgements and thanks to all concerned with special mention of the following.

I would like to thank Ajarn Ong-arj Viputsiri, chairman of my thesis committee, Dr. Robert S. Chapman, my thesis advisor, Ajarn Buddhagarn Rutchatorn, my external examiner, Ajarn Sathirakorn Pongpanich and Professor Edgar J. Love, committee members for consenting to be my mentors and guides in this maiden venture of mine in research.

I would also like to extend my heartfelt thanks to the Royal Government of Bhutan for giving me this opportunity to pursue a masters course in the prestigious College of Public Health, Chulalongkorn University, Bangkok. I will always persevere to serve my country and the Bhutanese people to the best of my abilities and with most sincere efforts for the rest of my career.

I will fail in my duty as a student here if I do not mention and thank all those faculty members who taught me with diligence and love. I hope that what I do in the domain of public health in future, in my own small ways will be significant (with $p < 0.05$) and I will definitely attribute those to all of you too. The assistances of the ever cheerful and helpful administrative and other support staff here will always be remembered. I will cherish my days here and try and live up to the lofty goals and visions of this institute.

My sincere thanks go also to all those who facilitated me in this research work including the staff and inpatients and patient attendants of the National Referral Hospital, Thimphu. I hope this small research of mine will be of some use to you in some ways.

To all my friends of this MPH cohort, my thanks for sharing many things beyond the academic confines of CPH. I will always try to remember and reminisce our days together and I wish you the best in all your ventures in life.

I would also like to make a special mention and acknowledge the support from all my Bhutanese friends at Rangnam apartment and elsewhere studying at various institutions here at Bangkok. Our days together will always be remembered down memory lane.

And lastly, I would like to thank my wife, three children and other near and dear ones for their moral and other valuable support. I will make sincere efforts to make up for the twelve months we all missed one another.

TABLE OF CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xii
ABBREVIATIONS	xiii
CHAPTER I INTRODUCTION	1
1. Background	1
2. Problem Identification	4
3. The Research Questions	6
4. Rationale of the Research	6
5. Purpose of the Research	7
6. Objectives of the Research	8
7. Conceptual Framework	9
8. Operational Definitions of Variables	12
CHAPTER II LITERATURE REVIEW	13
1. Introduction	13
2. Literature Related to Patient Satisfaction	14
3. Some Models and Theories of Patient Satisfaction	15

4. Literature Review Related to Doctor–Patient Relationship	21
5. Literature Review of Factors in Relation to Patient Satisfaction	26
CHAPTER III RESEARCH METHODOLOGY	30
1. Introduction	30
2. Measurement Methods	33
3. Time Line for Data Collection	33
4. A Brief Description of the National Referral Hospital (NRH) the Site of Research	34
5. Target Population	35
6. Sampling Technique	35
7. Inclusion Criteria	35
8. Exclusion Criteria	35
9. Study / Sample Population	36
10. Validity Testing of Questionnaires	36
11. Reliability Testing of Questionnaires	36
12. Training of Data Collectors/Survey Interviewers	37
13. Ethical and Administrative Clearances	37
14. Data Collections and Analysis	38
15. Analysis of the Research	39
16. Limitation of the Study	39
17. Benefits of the Study	40

CHAPTER IV RESEARCH FINDINGS	41
1. Introduction.....	41
2. Salient Features of Study Findings.....	41
3. Satisfaction Ratings.....	45
4. Levels of Satisfied and Dissatisfied Patients.....	58
5. Factors for Satisfaction as Responded by Satisfied Patients.....	62
6. Recommendations from the Satisfied Group of Patients for Improving Services and Patient Satisfaction.....	64
7. Factors for Dissatisfaction for Dissatisfied Group of Patients.....	65
8. Tests of Associations Between Socio-Demographic Factors and Specific Domains of Satisfaction.....	66
9. Associations Between Patient Factors and Service Domains Under Provider Aspect.....	71
10. Associations Between Patient Factors and Overall Satisfaction in Both Aspects.....	72
11. Overall Satisfaction with Age and Duration of Hospital Stay.....	73
11. Test of Differences in Terms of Satisfaction Between Factors Under Hospital Milieu and Provider Aspects.....	74
13. Interviews with Key Informants.....	75
14. Findings of the Self-Administered Questionnaire Survey of Physicians at the NRH.....	78

CHAPTER V – DISCUSSIONS, CONCLUSIONS,

RECOMMENDATIONS	82
1. Introduction.....	82
2. Salient Socio-Demographic Characteristics of Sample Population.....	83
3. Summary of Satisfaction Levels of Different Services in the Wards of NRH as Rated by Study Population.....	86
4. Salient Features of Dissatisfied Patients in the NRH.....	91
5. Factors for Satisfaction.....	93
6. Factors for Satisfaction as Responded by Satisfied Patients.....	99
7. Scores for Various Services Among Dissatisfied Group of Patients.....	99
8. Factors for Dissatisfaction Among the Dissatisfied Patients.....	100
9. Recommendations for Improvement as Suggested by Satisfied Patients.....	100
10. Interviews of Key Informants.....	101
11. Questionnaire Survey of Physicians on their Perceptions of Patient Satisfaction at the NRH.....	102
12. Discussions on Some Factors/Variables Under Certain Domains.....	103
CONCLUSIONS	106
1. Sample Features.....	106
2. Satisfaction Levels in the NRH.....	106
3. Satisfaction Levels for Different Service Domains at Different Wards.....	107
4. Factors for Satisfaction.....	107
5. Factors for Dissatisfaction as Responded by Dissatisfied Patients.....	108

6.	Recommendations for Improvement of Inpatient Services and Patient Satisfaction.....	109
7.	Summary of the Interviews with Key Informants.....	109
8.	Questionnaire Survey of Physicians at the NRH.....	109
9.	Some Limitations of the Study.....	110
RECOMMENDATIONS		112
1.	General recommendations.....	112
2.	Specific to the NRH.....	113
REFERENCES		115
ANNEXES		
ANNEX I	Questionnaires for Structured Interview Survey of Inpatients of Thimphu General Hospital (TGH).....	119
ANNEX II	Informed Consent Form.....	123
ANNEX III	Questionnaires for physicians' survey at the National Referral Hospital (NRH), Thimphu.....	124
ANNEX IV	Outline of topics for interviews with key informants of the Department and National Referral Hospital at Thimphu, Bhutan....	127
ANNEX V	Budget estimate.....	128
ANNEX VI	129
BIOGRAPHY		130

LIST OF TABLES

	Page
Table 1: Operational definition of variables.....	12
Table 2: Age distribution of study population.....	42
Table 3: Duration of hospital stay (in days) during time of survey.....	42
Table 4: Socio-demographic characteristics of sample population.....	43
Table 5: Satisfaction levels for whole sample population.....	46
Table 6: Satisfaction levels in the Eye, Ear, Nose and Throat ward.....	47
Table 7: Satisfaction levels in medical ward.....	48
Table 8: Satisfaction levels in the orthopedic ward.....	49
Table 9: Satisfaction levels in the maternity ward.....	50
Table 10: Satisfaction levels in the surgical ward.....	52
Table 11: Satisfaction levels in pediatric ward.....	53
Table 12: Satisfaction levels in the cabin.....	54
Table 13: Ward wise satisfaction matrix for hospital milieu, provider factors and overall combined.....	56
Table 14: Table showing ward-wise distribution of satisfied and dissatisfied patients.....	59
Table 15: Characteristics of dissatisfied patients.....	60
Table 16: Scores for service domains for dissatisfied patients.....	61
Table 17: Tests for differences in means of satisfaction scores between satisfied and dissatisfied patients in hospital and provider domains and overall satisfaction.....	62
Table 18: Factors for satisfaction as responded by satisfied patients.....	63

Table 19: Recommendations from the satisfied group	64
Table 20: Factors for dissatisfaction for dissatisfied patients.....	65
Table 21: Associations between age, ethnicity and duration of admission with accessibility.....	66
Table 22: Association between gender, referral status and admission history with waiting time.....	68
Table 23: Association between Referral status and Admission history with Comfort in the ward.....	69
Table 24: Disease status with nurses' competency.....	71
Table 25: Ethnicity with Doctor-patient relationship.....	71
Table 26: Association between age and overall satisfaction with domains under provider aspect.....	72
Table 27: Association between Age and Overall combined satisfaction.....	73
Table 28: Association between duration of admission and overall combined satisfaction.....	74
Table 29: Test of differences between means of scores under hospital milieu and provider aspects.....	75
Table 30: Distribution of physicians specialty/ward wise for the questionnaire survey.....	79

LIST OF FIGURES

	Page
Figure 1: Graph patient referrals and expenditure 1992-2002 in NRH1.....	3
Figure 2: Conceptual frame work of research.....	9
Figure 3: Aday and Anderson Model.....	16
Figure 4: Cognition-Affect Model of Satisfaction.....	18
Figure 5: Zone of Tolerance by Nelson E. and Larson C.....	19
Figure 6: The Making of Patient Satisfaction Happen.....	20
Figure 7: Patient flow in the National Referral Hospital (NRH).....	34

ABBREVIATIONS

BHUs	: Basic Health Units
EENT	: Eye, Ear, Nose and Throat
GNH	: Gross National Happiness
GNP	: Gross National Product
GDP	: Gross Domestic Product
JDWNRH	: Jigmi Dorji Wangchuck National Referral Hospital (NRH in short)
Khengpas	: The Central Bhutanese people
Lhotshampas	: The Southern Bhutanese people
MOH	: Ministry of Health
Ngalongs	: The Western Bhutanese people.
Nu.	: Ngultrum, the Bhutanese currency (US \$ 1= Nu. 46)
ORCs	: Out Reach Clinics
PHC	: Primary Health Care
RGOB	: Royal Government of Bhutan
Sharchops	: The Eastern Bhutanese people