AMERICAN UNIVERSITY OF BEIRUT

TESTING THE VALIDITY AND RELIABILITY OF THE REVISED OUTPATIENT SATISFACTION QUESTIONNAIRE AT AUBMC

by
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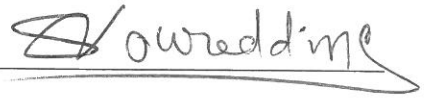

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AN ABSTRACT OF THE PROJECT OF

Mohammed Ahmad Azzam for Master of Science:
Major: Nursing Administration

Title: Testing the Validity and Reliability of the Revised Outpatient Satisfaction questionnaire at AUBMC

Aim: The main purpose of this project was to test the validity and reliability of the revised outpatient satisfaction questionnaire at the American University of Beirut Medical center (AUBMC). The study findings may provide the basis for healthcare providers to use for routine assessment and improvement of quality of care from patients' perspective.

Methods: The design of the study was descriptive cross-sectional. Population included patients who visited the AUBMC private clinics; the sample size was 308 participants randomly selected. Generic instrument was used and consisted of 29 closed ended questions and 1 open ended question. Data collection was conducted though personal interviews by phone calls within 48 hours after the participants' visits to clinics; response rate was 71.1%

Results: females accounted for 72%, males 28%, university graduates 70.2%, and self payers 76% of the 308 participants. The overall mean of the satisfaction items was 4.27; physicians had the highest mean of 4.86. The Cronbach alpha reliability coefficient was 0.859 which reflected acceptable internal consistency of the instrument. Principal component factor analysis revealed 4 factors-model that explained 67.8% of variance.

Recommendation: the study recommended rewording two questions to reflect satisfaction ratings rather than accounting "waiting time" and "time spent with physician"

Limitations: The questionnaire included 9 yes/no items and few multiple choice questions that were not amenable for factor analysis. Moreover, the questionnaire does not parallel any existing one in the literature, making benchmarking or comparing its psychometric properties to those of other instruments in the literature difficult.

Conclusion: The tool has acceptable internal consistency and can serve its purpose as the generic tool for the out-patient satisfaction survey.

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CHAPTER I

INTRODUCTION

Over the last two decades, there has been an increasing emphasis on patients' reported outcomes in clinical practice and in health care research. Now, patients are "active consumers of health care services, rather than merely passive recipients" (Shikiar, 2004, p. 205) and they are demanding excellence in their health care from care providers (Shikiar 2004). Quality outcomes, such as consumers' satisfaction with services, are becoming a high priority and the primary competitive quality indicator for health care providers. For this reason, health care organizations are now measuring patients' satisfaction and collecting their experiences with the care delivered in order to obtain valuable information to make the transformational change in care delivery systems (Urden, 2002). This experience is likely to influence future decisions related to which health care systems will the patient seek in the event of a health problem. Urden (2002), argued that measuring patient satisfaction is the most significant approach to genuinely understand a patient's perception of care; thus patient satisfaction has become an essential part of the quality measurement process where the hospital's patient satisfaction scores might be the best predictors for future successes in health care delivery systems.

Consumers of health care services can provide a wide base of information about their experience as inpatients and as visitors to ambulatory facilities. This information can be obtained through personal interviews or filling questionnaires in person or by phone calls. The yielded data would be utilized to promote and enhance the services offered in the health care settings. Institutions' quality improvement and management

programs rank patient satisfaction as a top priority quality indicator (Draper & Cohen, 2001). According to Urden (2002), there is a consensus among researchers that patient satisfaction is used to evaluate staff, managers, system performance and effectiveness.

A basic Medline search for "Patient Satisfaction" revealed more than 5400 articles. Three thousand articles were published since the year 2000 (done by the student researcher). Over the years, there is an ascending number of publications that explored satisfaction from patients' perspectives. Similarly, the number of patients' satisfaction survey tools that measure the concept of satisfaction has increased tremendously. For any institution to adopt or adapt a tool that effectively measure patient satisfaction, a valid and reliable instrument must be used (Draper & Cohen, 2001). The measure needs to be psychometrically sound and at the same time sensitive to the context of the health care system in which it will be used.

The main purpose of this project was to assess the reliability and validity of the revised outpatient satisfaction questionnaire at the American University of Beirut Medical Center (AUBMC). The finding of this project and its recommendations will be used to edit the questionnaire to enhance its utility by the medical center surveyors. The reliability testing aims to test the extent to which the instrument is measuring patient satisfaction in a consistent manner. Validity testing aims to determine whether or not the findings reflect the concepts underlying patient satisfaction (Urden, 2002).

A. Background

The Medical Center at The American University of Beirut (AUBMC) is attentive to patients' needs; action plans are done to meet patients and families

expectations. Satisfaction surveys are conducted to ensure that patients are satisfied with the services offered in line with high quality and optimal care to patients and families. According to records in the Patient Affairs Office, the first initiative to measure patient satisfaction was conducted by the Nursing Department in 1998. A self-administered questionnaire was used with inpatients that focused on the nursing services in the hospital. In 2006, the Patients Relation Office developed the first hospital wide inpatient satisfaction survey that addressed the nursing services as well as all other services in the hospital. Patients were interviewed through phone calls within a period of 48 hours after discharge. Satisfaction data were gathered on quarterly basis with an average sample of 200 patients. Data were then analyzed and sent to hospital administration, heads of units, clinical chairmen, and quality control and management heads for further actions and follow up.

In the year 2010, AUBMC underwent major changes in vision, structure and service to meet the new 2020 vision. The Patient Relation Office was expanded to the Patients Affairs Office in line with the 2020 vision. The mission of the Patients Affairs Office is to "promote and ensure patient satisfaction at all times and guarantee that the patient's stay at AUBMC is the very best by following a patient-centered care approach and maintaining service excellence" (AUBMC Website, 2013). Different functions were initiated in order to promote patient satisfaction at AUBMC, where each function's start and end point is the patient to make his/her stay at AUBMC most pleasant by providing excellent service.

The Patient Affairs Office took the initiative to expand the inpatient satisfaction survey to make sure it is measuring what is supposed to measure. A new tool was formulated and it was tested for reliability and validity in 2011. Results of the study

revealed that the new tool was reliable and was valid except for two items and recommendations were suggested and implemented that enhanced the effectiveness of the inpatient satisfaction survey.

The Patient Affairs Office next examined the outpatient satisfaction tool that was first initiated in July 2008 by the Patient Relations Office. The old questionnaire consisted of 22 questions filled through telephone based interviews within two working days after the clinic visit. The number of patients' visits to ambulatory services is around 5300 visit per day. The sample size was 408 participants from all the ambulatory services. Data were analyzed and reported biannually to departments' heads and quality control and management people for follow up and planning actions.

AUBMC being magnet designated and with new structure and vision, there was a basic need to revisit the ambulatory satisfaction tool. All the questions were examined, some were deleted, others were edited, and others are added. The old questionnaire does not include any questions about nursing care, so four questions were introduced that addressed the courteousness, responsiveness to needs, listening, and education as basic tasks of the nurses in the clinic. Other added questions targeted the availability of parking spots and teaching materials, courteousness of all house staff from the first point of contact when the patient asks for an appointment on phone till the point of contacting the cashier and leaving the medical center. The new questionnaire is composed of 29 closed ended questions, 20 out of the 29 are four and five point likert-type scale. One open ended question is added at the end of the survey to make sure that the patients will have the room to report their experiences that possibly may not be covered by the close ended questions. The new tool is a generic instrument that addresses all outpatient services in the medical center. It has been formulated by the

heads of the Patients Affair office, Nursing director, and the Leader for Nursing Research in the Nursing Services Department. Two faculty members from the School of Nursing were consulted for the last fine editing, one of them supervised the Arabic translation and back to English translation. For this tool to be applied into practice, the reliability and validity needs to be examined.

B. Significance

The vision of AUBMC is to be the leading academic medical center in Lebanon and the region by delivering excellence in patient-centered care, outstanding education and innovative research (AUBMC website, 2013). The new leadership team in AUBMC adopted a new vision for the year 2020; AUBMC patients are the center of all innovations and advancements and expansion activities adopted by the medical center. Six main paths are established to accomplish this vision. Path three stressed the persistent efforts on understanding the patients and his/her changing needs which is directly reflected in measuring patient satisfaction. This measurement should be psychometrically sound and sensitive to the concept of patient satisfaction.

Patient satisfaction measurement is a requirement for the Joint Commissions International (JCI) standards (Urden, 2002). The medical Center at AUB had JCI accreditation three times, the latest in 2010 and a new visit is expected in few months to re-accredit the medical center. Moreover, the American Nurses Credentialing Center's (ANCC) Magnet Recognition Program granted AUBMC its prestigious Magnet designation in June, 2009. The Magnet program recognizes nursing excellence in the delivery of care to patients guided by a professional practice model that clearly states as one of its indicators patient satisfaction levels. Patient satisfaction data are aggregated

and analyzed at the organization or unit level should provide data driven information for action plans related to improving patient satisfaction (American Nurses Credentialing Center, 2008). Since Magnet designation is going to be reassessed by ANCC in 2014, AUBMC needs to maintain patients' satisfaction at desirable levels.

Patient satisfaction is placed in the context of overall quality improvement because patient satisfaction surveys inform about the services that need improvement (Silberstein, 2010). In AUBMC, patient satisfaction is a major quality indicator where quantitative and qualitative reports are analyzed and sent for further action. Patient satisfaction data are benchmarked with other institutions and can be used for marketing the health care organizations for new customers.

C. Purpose of the study

The purpose of this project was to test the validity and reliability of the revised outpatient satisfaction survey at AUBMC.

CHAPTER II

LITERATURE REVIEW

The concept of satisfaction is complex regardless of the area in which it is studied or related to (Heidegger et al., 2006). It is an intricate and a multidimensional concept that needs more interpretation and investigation due to its complex nature (Hawthrone, 2006). According to Doran (2011), patients' expectations and satisfaction are directly related; patients are more satisfied if they receive the care that matches their expectations. For more than 30 years, satisfaction questionnaires have been the most commonly used methods to measure patients' perception of health care (Gonzales et al. 2005). Patient satisfaction with care represents an important outcome measure for healthcare and has been linked to health status, quality of life, adherence to recommended treatment and initiation of complaints (Jean-Pierre et al., 2011). Satisfied patients are more likely than unsatisfied patients continue to utilize health care services, keep their relationship with specific health care providers and comply with the treatment regimen (Aldebasi & Ahmad, 2011). Patients present to health care organization with certain expectations and the subsequent satisfaction or dissatisfaction is the outcome of their actual experience (Arshad et al., 2012). That actual experience should be assessed and measured using a reliable and valid instrument to make sure that satisfaction is measured accurately in a consistent way, and the results are transferable when the same construct is applied to different patient populations (Gorgan et al., 2003).

This chapter includes literature review addressing methods of data collection and patient satisfaction instruments. Instruments include tools used with hospitalized

patients and those used with outpatients measuring varied aspects of care and services. Data collection includes different approaches to collecting relevant satisfaction data.

A. Patient Satisfaction Instruments

There are two general types of patient satisfaction instruments: inpatient tools target the satisfaction of hospitalized patients, and outpatient tools target the satisfaction of visitors of the ambulatory facilities of healthcare institutions. Inpatient and outpatient instruments can be either generic or specific. Generic instruments cover a broad range of dimensions and allow comparison between different groups of patients or services, while specialty specific instruments are designed for a particular condition, service, patient group, or area of function (Feurer et al, 2007). Inpatient instruments are more common than outpatient ones in literature, while generic outpatient instruments are much less in number than specialty specific ones.

1. Generic outpatient satisfaction instrument

In 2003, Kegaan and McGee introduced the generic outpatient instrument; the Satisfaction with Outpatient Services (SWOPS) Questionnaire. The SWOPS questionnaire has been developed for use in Irish hospitals by the Health Services Research Center at the Department of Psychology in the Royal College of Surgeons In Ireland (RCSI). The SWOPS Questionnaire was tested in a survey with a sample size of 364 outpatient visitors to two well-known adult hospitals in Ireland. The questionnaire was both self-administered, filled by the participants directly after the clinic visit or through personal interviews by phone calls within two days after the clinic visit. The

overall Cronbach alpha reliability coefficient of the instrument was 0.84 which reflected very good internal consistency of the instrument. The questionnaire examined six domains. The first domain was the registration process which included attitude of the clerical staff, waiting time, simplicity, and refreshment facilities. The second domain was nursing care which included nurses' attitudes, professionalism, helpfulness, teaching, and overall care. The third dimension was the physicians' care which included time spent with the doctor, care and instructions, chance to voice questions, professionalism, helpfulness and politeness. The fourth dimension was information which included the overall satisfaction with the information given by the physician and the nurse. The fifth dimension was testing services which included laboratory, radiology, physiotherapy and other concerned departments. The sixth dimension was the overall satisfaction with visit to the clinic and the overall evaluation of the running of the clinic. Validity testing significantly confirmed the six domains of the questionnaire. The Cronbach alpha coefficients of the domains were 0.84 for the Registration Process, 0.92 for the Nursing Care, 0.95 for Physicians Care, 0.88 for Information, 0.88 for Testing Services, and 0.84 for Overall Satisfaction (Kegaan & McGee, 2003).

Another generic questionnaire that measured outpatient satisfaction was introduced by Garratt et al in 2005. The Questionnaire measured Outpatient Experiences (OPEQ) in patients attending 52 Norwegian hospitals with a self-administered instrument that consisted of 26 items. The questionnaire examined six domains. The first domain was clinic access which included the ease of finding the clinic/way within the clinic. The second domain was communication which included enough time for dialogue, personnel are understandable/competent/caring, opportunity

to give sufficient information, and unanswered questions. The third domain was organization which included available background information, helpful staff, organization of work, and well prepared personnel. The fourth domain was hospital standards which included waiting room, toilet and cleanliness. The fifth domain was information related to self-care, medications/side effects, examination, lab results, condition/prognosis, and treatment. The sixth factor was pre-visit communications which included acceptability of the appointment, waiting time, information from clinic received in advance, and ease of accessing clinic staff. The Cronbach alpha for the domains were 0.81 for clinic access and communication, 0.80 for organization, 0.65 for hospital standards, 0.87 for information, 0.84 for pre-visit communication. Garratt et al (2005) discussed that OPEQ is an acceptable tool to measure outpatient satisfaction in the hospitals throughout Norway.

2. Specialty Specific Outpatient instrument

Specialty specific instruments that measure outpatient satisfaction are common in literature. Osteoporosis Patient Questionnaire (OPSAT-Q) is a specialty specific instrument that target osteoporotic outpatients (Flood et al 2006). The instrument was composed of 16 items, sample size was 104 postmenopausal women on Biphosphonate treatment. Cronbach alpha was used to test the internal consistency of the instrument. Factor analysis revealed four domains; convenience (0.89), daily activities (0.84), overall satisfaction (0.87), side effects (0.72).

The Genito-Urinary Treatment Satisfaction Scale (GUTSS) is another specialty specific instrument introduced that was introduced by Hathorne (2000). The questionnaire consisted of ten closed ended items. The Cronbach alpha reliability

coefficient was 0.93. Validity Factor analysis revealed two factors that explained 75.1% of the variance.

3. Inpatient satisfaction Instruments

The generic instruments that target the patients' satisfaction with the ambulatory services are rare in the literature. The next tools are generic instruments that measure inpatient satisfaction. According to Ware et al (1983), the first Patient Satisfaction Questionnaire was developed by Southern Illinois University (SIU). The questionnaire had eight domains; accessibility, interpersonal manner, technical skills, finances, efficacy, physical environment, and availability. It was composed of 68 items Likert-type questions with responses ranging from strongly agree (1) to strongly disagree (5). The internal consistency was measured by Cronbach alpha coefficient. Factor analysis was done to test validity revealing that technical skills, access, finances, and interpersonal manner as the four domains of the survey with Cronbach alpha ranging from 0.56 to 0.92 (Ware et al., 1983). Gorgan et al in 2000 further assessed, edited and adapted the Patient Satisfaction Questionnaire (PSQ) that Ware et al. (1983) addressed. The PSQ was composed of 46 items measuring patient satisfaction with doctors, nurses, access to care, appointment, and facilities. Factor analysis supported the mentioned five factors model with Cronbach alpha for the subscales ranging from 0.74 to 0.95.

It is worth presenting in this chapter the results of the reliability and the validity testing of the inpatient satisfaction instrument that is being in practice at AUBMC. The study was done by a former nursing graduate student in November 2011. The questionnaire was composed of 24 items and assessed patients' satisfaction with 10 domains that AUBMC inpatients would encounter. The domains were admission,

medical care, nursing care, food service, housekeeping, general environment, pain management, overall satisfaction, other services, and discharge. The sample size was 200 participants. The overall Cronbach alpha coefficient was 0.80 which suggested considerable internal consistency of the instrument. Principal component factor analysis with varimax rotation revealed four conceptual domains that explained 56.4% of the variance. The first factor that included items related to courteousness and interpersonal skills of nurses, physicians and admitting staff was labeled as "communication factor" with Cronbach alpha coefficient of 0.84 and explained 24.9% of variance. The second factor included quietness, cleanliness, and recommending AUBMC; it was labeled as "environment" with Cronbach alpha coefficient of 0.52 and explained 12.8% of the variance. The third factor included overall satisfaction with care, food service, and discharge process and was labeled as "meeting basic needs" with Cronbach alpha coefficient off 0.55 and explained 10% of the variance. The fourth factor included correct meal, room comfort, phlebotomy service, and discharge instruction and was labeled as "quality of service" with Cronbach alpha coefficient of 0.66 that explained 8.8% of the variance. Two items related to courteousness of the cashier staff and radiology services did not load on any factor.

B. Patient Satisfaction Measurement Techniques

Patient satisfaction can be collected by various techniques. The techniques used affect the cost, timeliness, response rate, and the validity of the questionnaire (Silberstein, 2010). Types of measurement techniques include: focus group, self-administered instruments, individual interviews, and comment cards.

The focus Groups technique is a kind of group discussion where patients sit together and are facilitated by an expert facilitator to gather information on a certain concern, provide deep understanding of problems and generate potential solutions. This technique is efficient for collecting detailed qualitative data raised by quantitative results by exploring the opinions of selected number of patients which is usually six to eight patients (Pilot & Beck, 2008).. This technique is time consuming, difficult to analyze and the group may lack representativeness (Silberstein, 2010).

Self Administered Instruments are structured questionnaires that include open and close ended questions. Patients will self fill the questionnaires either by hard or soft copy by emails or internet. It is relatively inexpensive and allows for easier collection of quantitative and qualitative data (Pilot & Beck, 2008). However Self Administered questionnaires must be clearly and precisely designed and the choice of responses can influence how the respondents think and respond to the questions. Moreover, it requires professional statistical analysis and the response rate is challenging mainly in the case of internet questionnaires (Pilot & Beck, 2008).

Individual Interviews are done face to face or by phone where the interviewer fills the questionnaire that includes open and close ended questions. This method is more interactive where the interviewer can interpret the questions so there is lesser chance for misunderstanding the questionnaires items at the same time clarifying the response of the interviewee (Doran, 2011).. Individual Interviews have higher response rate and the open ended questions yield precious quality data. However, social desirability and interviewer bias may influence the results, and the telephone calls cannot be long. Lack of anonymity will make patients fear from the possible impact on

of their responses on the care they will receive from the institution later on. Consequently satisfaction results will tend to be positive (Pilot & Beck, 2008).

Comments Cards allow patients to write their opinions and provide valuable feedback regarding the health care services they receive in response to open ended questions on empty cards requesting their opinions, feedback and experiences. This form of evaluation not only helps measure patient satisfaction, but also helps organizations work on areas that may need additional resources and improvement initiatives based on the interest of the institution in patients' opinion (Pilot & Beck, 2008). However Comments Cards are not totally representative of the population and usually reflect extreme patient satisfaction or dissatisfaction (Silberstein, 2010).

The quantitative approach in collecting patient satisfaction provides accurate method in measuring the actual experiences of patients, and ensures comparability with internal and external benchmarking data within and between institutions (Silberstein, 2010). Qualitative methods of data collection provide detailed feedback and reflect the reality of patients' perceptions; however this approach to data collection needs extensive specialized training in order to be able to conduct the study (Urden, 2002). Doran (2011) recommended using both qualitative and quantitative approaches to measure clients' satisfaction and the provider's view point to make sure that patients' expectation and the provider's view point are congruent. Doran added that using both open and close ended questions will maximize the information yielded from patients' interviews

Testing the validity and reliability of the questionnaire, lack of benchmarking, length of time of the processed results, and unclear format of the results are the most common difficulties in assessing satisfaction (Greco & Powell, 2003). Silberstein

(2010) added that the length of the survey is important. While developing a questionnaire, the researcher should take into consideration that the length of the tool may exhaust the respondent. Doran (2011) stated that the timing of the survey affects the patient satisfaction rating; when the questionnaires are given upon discharge, only the satisfied patients will return it back. Yet the author did not mention the appropriate timing of the survey. Doran added that patient's expectations and health status post the visit to healthcare organization will bias the satisfaction level. Patients with good health status reported better satisfaction than those with poor health status; and patients with lower expectation and knowledge of services expressed more satisfaction with the care they received (Doran, 2011).

Patient satisfaction questionnaires are preferably conducted using the quantitative design with closed ended Likert – type scale questions. The instrument should be reliable and valid adjoined by open ended question to open the door for the patient to add any anecdote or opinion that could be valuable for investigation, quality monitoring and improvement.

Inpatient satisfaction instruments are more common than outpatient satisfaction instruments in literature. Generic outpatient instruments are much less common than specialty specific instruments. In all case scenarios, psychometric properties of the mentioned instruments cannot be fully transferred to AUBMC private clinics due to differences in culture, environment, access, study populations, and expectations.

CHAPTER III

METHODOLOGY

The purpose of this study is to measure the validity and reliability of the new ambulatory patient satisfaction questionnaire that will be implemented in AUBMC. The design of the study is descriptive cross-sectional. As this study was a quality improvement project and no identifying data were included on the data collection instrument, the study was exempted from approval by the institutional review board.

A. Population and Sample

The study population included all patients who visited the AUBMC private clinics during the period from February 25 till June 12, 2013. The number of clinics visits is around 5300 per week excluding the Outpatient Department (OPD). As per the Patients Affairs Office, the initial sample size was thought to be 406 participants based on the standard deviation of the previous surveys. According to Polit and Beck (2008), at least 100 participants and preferably minimum 10 participants per item should be taken into consideration when doing factor analysis and deciding on the size of the sample. Moreover, according to the rule of thumb, at least 10 participants per item should be present for statistical factor analysis. For this reason, the sample size was down sized to 308 participants securing 10.5 participants per each item knowing that the number of items is 29.

Random sampling was done. The Patient Relation Representatives sent the random lists including clinic visitors from all services excluding OPD to the student

researcher. Recruitment of participants was done till a total number of 308 participants was achieved. Since the sampling plan was random, the proportion of participants per service to total study sample number is almost equivalent to the proportion of visitors per service to the total population visiting the clinics at AUBMC. Of the 308 interviewees, there were 253 patients interviewed; 32 patient parents; 5 patient spouses and 18 patients' children. Table one shows the number of participants interviewed per service.

Table 1: Number of participants per service:

Service	Number of patients:308
Internal Medicine	121
Surgery	49
OBS/GYN	46
Pediatric	18
Ophthalmology	18
Otolaryngology	15
Dermatology	15
Neurology	10
Psychiatry	9
Family Medicine	7

B. Instrument

The revised tool is a generic instrument that addressed all outpatient services in the medical center. It has been developed by the heads of the Patients Affair office, the Nursing director, and the Leader for Nursing Research in the Nursing Services Department. Two faculty members from the School of Nursing were consulted for the last fine editing; one of them supervised the Arabic translation and back to English translation by another person blind to the original English version. For this tool to be

applied into practice, the reliability and validity needed to be examined. A need to modify the former instrument was driven by the introduction of new roles for nurses in the ambulatory facilities as recommended by Magnet, the new structure and vision of the medical center, and the importance of assuring the tool is reliable and valid. The revised questionnaire (see appendix I) consisted of 29 closed ended questions, 17 direct satisfaction questions with five point Likert-type responses ("5" reflected highest satisfaction and "1" reflected lowest satisfaction); and three questions that are four point Likert-type non satisfaction. Nine questions were "Yes" or "No" closed ended questions. One open ended question was added at the end of the survey to make sure that the patients have the opportunity to share their experiences that may not be covered by the close ended questions. The new survey is a generic tool that addressed chronologically all services related to ambulatory facilities; these include scheduling process (seven questions), parking (two questions), arrival time (two questions), clinic assistants (two questions), waiting time (one questions), nurses (four questions), physician (four questions), clinic environment (one questions), teaching material (one question), cashier (one question), confidentiality (one question), working hours (one question), overall satisfaction (one question), recommendation (one question).

C. Procedure

The Patient Affairs Office usually collects patient satisfaction data via personal interview by phone calls. This is attributed to different factors among them the cultural factors where the Lebanese population response to mail surveys is very low and the postal system in the country is not reliable. Moreover, self-administered surveys during

the visits will interfere with waiting time in the clinics and increase burdens on the participants if administered at the end of the visit.

The Patient Relations Representative trained the student researcher in interviewing skills. Mock interviews were done to make sure the graduate student is competent to conduct the telephone interviews for data collection. Ten pilot interviews were done to obtain feedback about the ease/difficulty of answering the questions of the tool. Minor modifications were done to the Arabic version of the tool in response to the feedback from the pilot interviews.

The interviews were made within 48 hour after the clinic visit by the patient. The data collector identified himself to the patients and informed them about the purpose of the study and interview time (10 minutes) as scripted on the first page of the instrument (see Appendix I). The interviewer assured the patients about the confidentiality and anonymity of the information; that their answers cannot be traced; and their responses will not affect the care they will receive at AUBMC in the future. Patients who agreed were interviewed. Residence, occupation, and educational level data were obtained from the participants; while age (patient's age), gender, insurance, case number, service, and the primary physician were obtained from the data sheet of the Patients Affairs Office. It is worth mentioning that this project was Institutional Review Board (IRB) exempted since it falls under quality improvement projects.

Four hundred and thirty three participants were contacted between February 25 till June 12, 2013; 31 patients were not available, 11 had wrong phone numbers, 77 excused themselves, and six patients did not complete the interview. Three hundred and eight patients were interviewed ending with a response rate of 71.13%. The survey was

conducted via phone calls within 48 hours of the client visit to the ambulatory services. Each interview lasted from eight to twelve minutes.

D. Data Analysis

The interviewer entered the data directly into the SPSS data program. The 308 interviews were coded from 1 to 308 and separate excel data sheets contained the corresponding codes and the patient identifiers. The excel sheets were kept as soft copies in a password protected file.

Descriptive statistics used for data analysis included means, standard deviation, percentages and frequencies for the variables under study. Cronbach Alpha coefficient was used for to the reliability in addition to Pearson r correlation coefficient for inter-item correlations. For construct validity testing, principal component factor analysis (PCA) with oblimin rotation was used. The principal component method was used because it is the most commonly used method to reduce the number of items that explain the variance in the scores by clustering them into factors. An oblique rotation rather than an orthogonal one was used to facilitate interpretation of results and because it was assumed that the factors may be related. Since the items or variables are related to each other, communication for an example is a common variable between items; thus oblimin rotation was done to identify related commonalities.

CHAPTER IV

FINDINGS

The purpose of this study is to test the validity and reliability of the revised outpatient satisfaction survey in AUBMC. A descriptive cross-sectional design was used; data was collected using a 29 closed ended items and one open ended item questionnaire. The findings of the study are shown in this chapter.

A. Sample Characteristics

The total number of participants who were contacted was 433, 11 participants had wrong numbers, 77 participants declined because they were busy, 6 participants did not complete the interview, 31 participants were not available, leaving 308 who completed the interview with a response rate of 71.1%. Out of the 308 persons interviewed, females accounted for 72% and males for 27%. The patients made 82.1% of the sample and family members 17.9%. Respondents who had university education formed 70.2% of the sample and over half of the sample were either professionals or in management positions. Moreover, the majority of participants (89.9%) were from Beirut, self-payers (76%) and were coming for follow up visits (72%) Table two further illustrates sample characteristics. It is worth noting that the age of the family member respondents was not taken during the interview, so the age data presented in the table below is that of the patients.

Table 2: Sample Characteristics

	Variable	Frequency	Percent (%)
Gender	Female	222	72.0
	Male	86	27.0
Patient Age	< 16	23	7.5
	16-65	189	61.3
	>66	96	31.2
Education	Primary	35	11.5
	Secondary	56	18.4
	Undergraduate	176	57.7
	Graduate	38	12.5
Occupation	Professionals	107	34.7
	Management	62	20.1
	Skilled Workers	25	8.1
	Does not work	72	23.4
	Student	4	1.4
	Retired	38	12.3
Residence	Beirut	277	89.9
	Mount Lebanon	17	5.5
	Others	14	4.6
Service	Internal Medicine	121	39.2
	Surgery	49	15.9
	OBS/GYN	46	14.8
	Pediatric	18	5.9
	Ophthalmology	18	5.9
	Otolaryngology	15	4.8
	Dermatology	15	4.8
	Neurology	10	3.2
	Psychiatry	9	3.0
	Family Medicine	7	2.8
Insurance Type	Private	68	22.1
	Governmental	6	1.9
	Self	234	76.0
Person interviewed	Patient	253	82.1
	Family member	55	17.9
First visit	Yes	85	27.6
	No	222	72.3

B. Satisfaction Results

The means and standard deviations of the 18 satisfaction items are shown in table three. The overall mean of the 18 five-point Likert type satisfaction items is 4.27, which is equivalent to 85.4% satisfaction rate. The highest means were 4.86 and 4.79 for the questions that target the courteousness of physicians and their explanations of the condition and treatment given in an understandable and clear way. The lowest mean was 0.68 for the question that rated the educational material related to patient condition. It is worth noting that 61% of the participants did not notice any education material in the clinics. The second lowest mean was 3.65 for the question that rated the availability of the parking spots in the medical center. The third lowest mean was 4.02 for the question that rated the responsiveness to calls by operators.

Table 3: Means and Standard Deviation of Satisfaction Items

Satisfaction Items	Mean	Standard Deviation
Responsiveness to calls by operators	4.02	1.008
Courteousness of operators	4.47	0.516
Scheduling according to preferred date and time	4.08	1.133
Availability of parking spots	3.65	1.135
Courteousness of parking staff	4.00	0.583
Courteousness of clinic assistants	4.59	0.626
Courteousness of nurses	4.68	0.482
Listening of nurses to patients concerns	4.68	0.482
Explanations of nurses regarding tests, procedures,	4.69	0.510
Responsiveness of nurses needs	4.67	0.551
Courteousness of physician	4.79	0.683
Physician explanations about condition and treatment	4.86	0.374
Clinic environment, comfort and lightening	4.74	0.581
Related education material	0.68	3.493
Courteousness of cashier staff	4.60	0.516
Opening hours of clinics	4.25	0.890
Overall satisfaction with visit	4.72	0.462
Recommendation of AUBMC clinics to family/ friends	4.71	0.757

Results of other related items were studied. Question five, which is linked to question four, assessed the time that the participant had to wait between his/her preferred visit and the scheduled appointment. Forty eight participants rated "poor" and "very poor" on question four that asked about scheduling the preferred date and time as per their requested appointment. Question five reflected that 13 patients out of the 308 participants waited less than a week (4.2%), 27 waited from 1-2 weeks (8.8%), seven waited 2-3 weeks (2.3%), and one patient waited > 3 weeks (0.3%). Question 13 reflected that 27 participants (8.8%) waited more than one hour from the scheduled appointment till the time they saw the doctor. Seventy two waited between 31 and 60 minutes (23.4%), 170 between 16 and 30 minutes (55.2%) and 39 waited less than 15 minutes (12.7%). Out of the 308 participants who answered question 18, 118 (38.3%) spent between 5 and 15 minutes with the doctor, 185 (60%) spent between 16 and 30 minutes, and 5 (1.7%) spent between 31 and 60 minutes.

In answer to the open ended question, participants mainly complained about the waiting time in calls and clinics, parking availability, and the expensive clinic visit charge. Almost one third of the participants reported at least one of those complaints. Some patients complained that some physicians are always in hurry, do not offer enough time for questions and answers, are unreachable by phone, and do not accept radiologic or lab tests done outside AUBMC. Few patients complained about the cleanliness of the bathrooms, and one patient complained about the cleanliness of the play room. Four patients stated that they were disappointed with the overall services in the medical center that did not meet their expectations. Twenty six participants who were employed suggested extending clinic working hours after 5 pm and/or opening on Saturdays.

C. Reliability Results

Cronbach alpha coefficient was used to measure the questionnaire's reliability. Question 24 was removed from the reliability testing since 61.4% of the participants reported "not noticing" any teaching material in the waiting area of the clinics, resulting in a lot of missing data. Question 5, with 84.4% missing data, was also removed from reliability testing. Questions 13 and 18 were also removed from the reliability testing since they were not direct satisfaction questions. The Cronbach Alpha coefficient for the left 17 five-point Likert-type satisfaction items was 0.859.

1. Bivariate Correlation

Correlation testing using Pearson r coefficient was done for the 17 satisfaction items. Majority of correlations were significant and at least moderate in strength as evident in table number four. The highest correlations were between the questions that targeted satisfaction with the nursing care; r between any 2 of the 4 questions ranged from 0.859 to 0.993.

Table 4: Bivariate Correlations

Item	Q1	Q2	Q4	Q8	Q9	Q12	Q14	Q15	Q16	Q17	Q19	Q20	Q23	Q25	Q27	Q28	Q29
Q1	1																
Q2	.515**	1															
Q4	.449**	.301**	1														
Q8	.315**	.214*	.134	1													
Q9	.249**	.353**	.200*	.564**	1												
Q12	.200**	.199**	.136*	.122	.210**	1											
Q14	.209**	.306**	.184**	.345**	.533**	.380**	1										
Q15	.214**	.320**	.188**	.333**	.530**	.383**	**.993****	1									
Q16	.345**	.448**	.113	.387**	.437**	.370**	**.878****	**.878****	1								
Q17	.300**	.468**	.072	.407**	.416**	.322**	**.859****	**.859****	**.989****	1							
Q19	.120	.158*	.076	.091	.103	.110	.125*	.126*	.142	.111	1						
Q20	.159*	.194**	.117*	.191*	.269**	.228**	.252**	.253**	.374**	.322**	.407**	1					
Q23	.172**	.297**	.110	.282**	.278**	.133*	.302**	.297**	.465**	.396**	.122*	.325**	1				
Q25	.248**	.340**	.202**	.123	.384**	.227**	.406**	.401**	.535**	.451**	.124*	.282**	.352**	1			
Q27	.313**	.181**	.268**	.303**	.232**	.287**	.305**	.297**	.354**	.317**	.145*	.270**	.296**	.354**	1		
Q28	.349**	.343**	.209**	.199**	.277**	.205**	.363**	.356**	.422**	.393**	.094	.323**	.335**	.464**	.483**	1	
Q29	.105	.102	.030	.038	.087	.084	.056	.056	.148*	.094	.057	.224**	.121*	.269**	.224**	.412**	1

- P < 0.05; ** p < 0.01

2. Reliability results per item

Reliability results per item revealed that removing question 4 that target scheduling according to preferred date and time is associated with an overall Cronbach Alpha reliability coefficient of 0.880. Table five further illustrates the reliability per each item.

Table 5: Reliability Results per Item

The 17 satisfaction items	Cronbach α if Item Deleted
Q1- Responsiveness to calls by operators/scheduler	.854
Q2- Courteousness of operators/schedulers	.850
Q4- Scheduling according to preferred date and time	.880
Q8- Availability of a parking spot?	.850
Q9- Courteousness of the parking staff	.852
Q12- Courteousness of the assistants	.851
Q14- Courteousness of the nurses	.844
Q15- Listening of nurses to concerns	.844
Q16- Explanations given by nurses for test/medications	.839
Q17- Responsiveness of nurses to your request/needs	.839
Q19- Courteousness of physician	.864
Q20- Physician explanation to condition/treatment in	.853
Q23- Clinic environment and cleanliness	.851
Q25- Courteousness of cashier staff	.848
Q27- Opening hours of clinics	.842
Q28-Overall satisfaction with the visit	.851
Q29- Recommend AUBMC private clinics to friend//family	.863

As shown in the table, removing question 19 (Courteousness of the physician) and question 29 (Recommending the clinic) is also associated with reliability coefficients of 0.864 and 0.863 consecutively.

D. Validity Testing

Factor analysis was used to test construct validity. The method used was Principal Component with Oblimin Rotation. The choice was based on the correlations findings that suggested that some of the factors may not be independent. The scree plot, Eigen value > 1 and factor loadings over 0.4 were the criteria used to decide on the number of factors and the items in each factor (Munro, 1997). Rotation was used to facilitate interpretation.

Four factors were identified according to the structure matrix, explaining 67.9% of the variance. Table 6 illustrates the four factor components. The first factor included six questions: Q8 (availability of parking spots, 0.783), Q16 (explanations given by nurses, 0.782), Q17 (responsiveness of nurses, 0.782), Q9 (courteousness of parking staff, 0.782), Q 23 (clinic environment, 0.744), and Q25 (courteousness of cashier staff, 0.589). The second component included five questions: Q14 (courteousness of nurses, 0.780), Q15 (listening of nurses, 0.780), Q12 (courteousness of clinic assistants, 0.758), Q20 (doctors explanations, 0.682), and Q19 (courteousness of physicians, 0.676). Questions 16 and 17 that targeted the "explanation" and "responsiveness" of nurses loaded equally highly on factor two as well (0.738), so these two questions will be analyzed in factor two because they fit more conceptually in this component. The first component included "parking", "environment", and "cashier" and so was labeled as "*Non Professional Personnel*". The second factor included "nurses", "physicians', and "clinic assistants" and was labeled as *"Professional Personnel"*. Table six further illustrates the variance explained and Cronbach alpha for each factor.

Table 6: Factor Analysis Results

Satisfaction Items	Non professional Personnel	Professional personnel	Scheduling Process	Overall satisfaction
Q8 Availability of parking spot	**.783**	-.168	.283	.276
Q16 Explanations given the nurse	**.782**	***-.738***	.408	.186
Q17 Responsiveness of Nurses	**.782**	***-.738***	.408	.186
Q9 Courteousness of parking staff	**.780**	-.104	.278	.091
Q23 Clinic environment	**.744**	-.284	.115	.200
Q25 Courteousness of cashier staff	**.589**	-.399	.477	.319
Q14 Courteousness the nurses	.714	**-.780**	.429	.187
Q15 Listening of the nurses	.714	**-.780**	.429	.187
Q12 Courteousness of clinic assistants	.312	**-.758**	.275	.138
Q20 Doctor explanation of condition	.216	**-.682**	.156	.422
Q19 Courteousness of physician	-.058	**-.676**	-.060	.228
Q1 Responsiveness of operators	.242	-.218	**.792**	.181
Q2 Courteousness of operators	.464	-.279	**.781**	.017
Q4 Scheduling the preferred date	.061	.022	**.763**	.047
Q29 Recommending AUBMC clinics	.097	-.104	-.002	**.817**
Q28 Overall satisfaction with visit	.393	-.428	.316	**.716**
Q27 Opening hours of clinics	.401	-.483	.502	**.629**
Eigen Value	7.105	1.70	1.46	1.26
Variance Explained	41.80%	10.02%	8.60%	7-40%
Cronbach Alpha	0.64/0.84	0.82/0.67	0.64	0.58

The third factor included three questions: Q1 (responsiveness to phone calls by operators, 0.792), Q2 (courteousness of operators, 0.781), and Q4 (scheduling according to preferred date, 0.763). So the third factor was labeled as the *"scheduling process"*. The fourth factor included three questions: Q 29 (recommendation of clinics to others, 0.817), Q28 (overall satisfaction with the visit, 0.716), and Q27 (opening hours of clinics, 0.629) and was labeled as the *"clinic working hours and overall satisfaction with visit"*.

As shown in the table, the Cronbach alpha of the Subscales were 0.64 for the "None Professional Personnel" factor and 0.82 for the "professional Personnel" factor considering questions 16 and 17 to be in factor 2. If questions 16 and 17 were left in factor one, the Cronbach alpha subscale would be 0.84 for factor one, and 0.67 for factor two. In both cases the total variance explained by the first two factors would be 51.82%.

The Cronbach alpha subscale of the "scheduling process" factor was 0.64 with 8.60% of variance explained by this factor. Cronbach alpha for the "overall satisfaction" factor was 0.58 and 7.40% of the variance is explained by this factor.

In summary, the results revealed high satisfaction scores with an overall mean of 4.27. The tool has acceptable internal consistency. Factor analysis revealed four conceptual factors with acceptable Cronbach alpha for each subscale.

CHAPTER V

DISCUSSION

The purpose of the study is to test the validity and reliability of the revised ambulatory patient satisfaction questionnaire that will be implemented in AUBMC. Pilot testing was done on 10 participants to check the clarity and understandability of the tool. It was clearly understood by the 10 participants; however eight participants answered by not noticing any education material when they were asked to rate the education material related to their health condition. So, a new value that says "did not notice any" was added to the answer options under this question.

The sample was representative of the population of clinic patients as noted by the similarity in sample distribution of participants by service to that of the population. Females formed 72% of the sample while males were 28%. The greater number of female participants is attributed to the 46 obstetrics women of the total 308 participants; also mothers of the pediatric patients were the respondents almost all the time.

A. Satisfaction Results

The mean score for the direct satisfaction items was 4.27 out of 5, which is a high satisfaction score. This reflects a ceiling effect. In fact, most items' scores were skewed to the left. This could be influenced by social desirability, or cultural values of the Lebanese, where people tend to give positive answers about their experiences. Other factors include the fear of participants that their answers will affect their future health

care services in the medical center, although confidentiality of the interview data was assured to all participants.

The highest score was for physicians (4.79), and the lowest was for the education materials (0.68). Since the question related to education material had large number of missing values, it may explain this low score. The next lowest mean was for the availability of parking spots, with a mean score of 3.65. This result was supported by the fact that 129 did not use AUBMC parking area because many of them already knew that there are no available spots.

Most of the patients complained about the waiting time in the clinics between the appointment time and the actual time they saw the doctor; 55% waited more than 15 minutes, 23% waited more than 30 minutes, and 9 % waited more than one hours. Some qualitative data allow the identification of loaded physicians with an average of waiting time more than one hour. Many patients, even qualitatively, reported waiting more than 90 minutes in the clinic. This is an incentive for the administration to track waiting times and try to fix this issue. Nevertheless popular physicians may remain the patients' choice even if their waiting time cannot be reduced.

Although the satisfaction mean scores for the nursing items were above 4.6, there were a lot of missing data on the items related to explanations given by nurses and the responsiveness of nurses to patients' concerns. Around 43% of participants rated "not applicable" when they were asked to rate the explanations given by nurses about treatment, medications etc… and about the responsiveness of nurses to their needs. "Not applicable" mean that those patients either did not encounter nurses or they did not need any of the services offered. Four percent of patients denied any encounter with nurses.

In the qualitative comments, many patients reported only meeting them while they were taking vital signs. The four questions that assess nursing care domains; courteousness, listening to patients' concerns, teaching of patients (lab results/procedures, medications, etc…) and the responsiveness of nurse's to patients' need and requests were added to the questionnaire since this was a requirement of Magnet. However, the findings do not provide a clear picture of the availability and role of the nurses. For instance, to what extent is the nurses' role developed and empowered? Why are there no nurses in some clinics? All these questions should be addressed by both the clinics and nursing administration.

Questions 18 assessed the number of minutes each participant spent with the physician in the clinic. However, the findings cannot reflect satisfaction levels because what is an appropriate time with the physician is a subjective perception that may differ from one patient to another. This question could be used as a satisfaction item if it asked about satisfaction with the time spent rather than the actual time spent.

As mentioned before, 61% of patients did not notice the presence of educational materials related to their health condition. So, question 24 was not included in psychometric testing of the instrument. The visibility of the materials should be enhanced. It is an ongoing project being run by the Patients Affairs Office to develop a wide base of patient educational materials.

B. Validity and Reliability Results

The overall Cronbach alpha coefficient (0.859) suggested good internal consistency of the tool. The factor analysis results cannot be accurately compared to

those of other instruments due to the difference in the items used. Nevertheless, looking at the SWOPS and OPEQ psychometric testing results, one could see similarity in the clustering of items. For instance physicians' related items, nurses' related items, and scheduling process related items. Yet the Cronbach alpha coefficients of the scales in the current study are lower than those reported for the SWOPS (Kegaan & McGee, 2003). The inconsistency between some quantitative results and qualitative comments might explain the low Cronbach alphas.

Similar to the results on the inpatient satisfaction questionnaire done at AUBMC, communication related items accounted for the largest proportion of the variance explained in the tool; 51.92% for factors one and two in this study compared to 24.92% for the communication factor in Al Hassan (2011) study. These results reflect the Lebanese culture where communication is highly valued and an important aspect of their evaluation of any system or experience, such as the clinic visit at the AUB medical center.

C. Limitation

One limitation for reliability testing is that questions had different formats with some multiple choices and some yes/no questions, thus limiting the items amenable for factor analysis. Another limitation is that the questionnaire does not parallel any existing one in the literature, making benchmarking or comparing its psychometric properties to those of other instruments in the literature difficult. Nevertheless satisfaction questionnaires ought to be catered to the characteristics of the organization and needs of its population. Thus even if different from the existing instruments, data can be compared over time and results used for quality improvement purposes, as is

noted in the recommendations section. One way to enhance reliability may be through the creation of specialty specific instruments, which comes in parallel with the creation of centers of excellence in the medical center.

D. Recommendations

The study showed that there is room to improve the outpatient patient satisfaction tool at AUBMC, even though it has good reliability and validity. Question 13 should be reworded to reflect satisfaction rather measuring the waiting time in clinics. Results can be correlated to actual waiting time on the system to determine what a satisfactory waiting time is for patients in various services and with various conditions. Moreover, Questions 18 should be reworded to reflect satisfaction with the time spent with the physician.

The role of nurses should be further expanded and developed in the clinics; patients should pass through the nurses after seeing the doctor to answer their questions, queries, and to reinforce the physicians' explanation of the treatment plan. Education material should be more available and visible in the clinics waiting areas. It would be appropriate and great if the nurses direct the patients and alert them to these pamphlets so they assimilate the educational material related to their health condition.

E. Conclusion

The tool has acceptable internal consistency and can serve its purpose as the generic tool for the out-patient satisfaction survey. The validity results attest to the

importance of the quality of interaction and communication with the patients in promoting their satisfaction with the services at the AUBMC clinics.

APPENDICES

APPENDIX I

American University of Beirut Medical Center
Out patient satisfaction Questionnaire

Oral Consent

"My name is _____ and I am calling you from the administration of the American University of Beirut Medical Center to ask you some questions about your last visit to the Private Clinics. This survey is conducted as part of our continuing effort to improve the quality of the services we provide to our patients and your input is very valuable to us.

"If you can spare 10 minutes of your time, I would very much appreciate. Your answers and comments will remain anonymous and cannot be traced back to you. You have the right to choose not to participate in this survey if you wish, and that would not affect the care that you get at AUBMC in the future. However, if you do choose to participate, you would be playing an important role in improving the quality of our services at AUBMC."

Consented: _____ **Declined: _____**

Demographic data retrieved from the system:

- Age: ----------
- Gender: ----------
- Insurance: ----------
- Physician: ----------
- Case number: ----------
- Service: ----------

Demographic data retrieved from the interview:

- Occupation: ---------
- Education: ----------
- Residence: ----------
- Is this your first visit to AUBMC private clinics? ☐ Yes ☐ No

Person being interviewed is:

____ Patient

____ Caregiver (*If caregiver, state relationship to patient*: _____)

For each question choose the appropriate answer:

1- How would you rate the responsiveness to your call by our operators/schedulers?
   - ○ Excellent
   - ○ Good
   - ○ Neutral
   - ○ Poor
   - ○ Very poor
   - ○ Not applicable

2- How would you rate the courteousness of our operators/schedulers?
   - ○ Excellent
   - ○ Good
   - ○ Neutral
   - ○ Poor
   - ○ Very poor
   - ○ Not applicable

3- Did you receive clear instructions about the location of your doctor's clinic?
   ☐ Yes ☐ No

4- How would you rate scheduling the preferred date and time of your requested appointment?
   - ○ Excellent
   - ○ Good
   - ○ Neutral
   - ○ Poor
   - ○ Very poor

   If poor/very poor, please answer question number 5

5- How many days did you have to wait between your preferred visit time and the actual scheduled appointment?
   - ○ less than a week
   - ○ one-two weeks
   - ○ two-three weeks
   - ○ more than a month

6- Did you receive a call/sms from AUBMC confirming your appointment?
   ☐ Yes ☐ No

7- In case of change/cancelation of your appointment were you informed ahead of time?
   ☐ Yes ☐ No ☐ Not applicable

8- How would you rate the availability of a parking spot?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ poor
- ○ Very poor
- ○ Not applicable

9- How would you rate the attitude of the parking's staff?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor
- ○ Not applicable

10- Did you arrive on time for your appointment?

- ○ Yes (skip question number 11)
- ○ No (answer question number 11)

11- How late were you?

_____ min Not applicable

12- How would you rate the helpfulness and courteousness of the Clinic Assistants?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

13- How long, <u>from your scheduled appointment</u>, did you have to wait to see your doctor?

- ○ less than 30min
- ○ 30-60 min
- ○ More than 60 minutes

14- How would you rate the courteousness and respect of the nurses?

- ○ Very good
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor
- ○ Not Applicable

15- How would you rate the careful listening of your nurses?

- ○ Very good
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor
- ○ Not Applicable

16- How would you rate the explanations given by the nurse about your medications and possible side effects?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor
- ○ Not applicable

17- How would you rate the explanations given by the nurse about your test results/procedures?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor
- ○ Not applicable

18- How much time did you spend with your doctor during your visit?

- ○ 5-15 minutes
- ○ 16-30 minutes
- ○ 31-60 minutes

19- How would you rate the courteousness of your physician?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

20- How would you rate the doctor's explanation of your health condition and treatment in a way you could understand?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

21- Did your doctor order for you any tests/procedures?

☐ Yes ☐ No ☐ Not applicable

22- If yes, did the Clinic Assistant assist you in scheduling the ordered tests/procedures?

☐ Yes ☐ No ☐ Not applicable

23- How would you rate the clinic's environment (cleanliness, comfort, lighting…)?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

24- How would you rate the availability of educational Materials or programs related to your condition?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor
- ○ Did not notice any
- ○ Not Applicable

25- How would you rate the courteousness and respect of the staff at the cashier's office?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

26- Was your privacy and confidentiality respected by the staff?

☐ Yes ☐ No

If no, kindly explain how: _____

27- How would you rate the opening hours of the Private Clinics?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

28- Overall, how would you rate your visit to AUBMC's private clinics?

- ○ Excellent
- ○ Good
- ○ Neutral
- ○ Poor
- ○ Very poor

29- Overall, would you recommend AUBMC's private clinics to a friend/family member?

- ○ Definitely will recommend
- ○ Probably will recommend
- ○ Neutral
- ○ Probably will not recommend
- ○ Definitely will not recommend

Do you have any additional comments you would like to make regarding your visit to the doctor?

_____
_____
_____
_____
_____
_____

BIBLIOGRAPHY

Aldebasi, A. & Ahmed, M. (2011). Patients' Satisfaction with Medical Services in the Qassim Area. *Journal of Clinical and Diagnostic Research, 5*(4), 813-817.

Al Hassan, M., Dumit, & N., Noureddine, S. (2011). Psychometric testing of the patient satisfaction questionnaire. Unpublished student project. American University of Beirut.

Arshad, A. S., Rohul, H. S. & Fazli, A. J. (2012). Measuring Patient Satisfaction: A Cross Sectional Study to Improve Quality of Care at a Tertiary Care Hospital. *Health Line*, *3*(1).

Doran, M. (2011). *Nursing Outcomes: the state of the* science (2nd ed.). Jones and Bartlett Publishers.

Jones & Bartlett Learning Draper, M. , Cohen, P., & Buchan, H. (2001). Seeking consumer view: what use are results of hospital patient satisfaction surveys? *International journal of Quality, 13*(6), 463-468.

Feurer, I., Russel, R. & Pinson, C. (2007). Incorporating quality of life and patient satisfaction measures into a transplant outcomes assessment program: Technical and practical considerations. *Progress in Transplantation, 17*(2), 121-128.

Flood, E., Beusterien, B., Green, G., Shikiar, S., Baran, B., Amonkar, A., & Cella, C. (2006). Psychometric evaluation of the osteoporosis patient treatment. *Health and Quality of Life Outcomes*, *4*(42), 1-9. Retrieved from http://www.hqlo.com/content/4/1/42

Garrat, A., Bjaertnes, A., Krogstad, U., & Gulbransen, P. (2005). The outpatient experiences questionnaire (opeq): data, quality, reliability, and validity in patients attending 52 Norwegian hospitals. *Qual Saf Health care*, *14*, 433-437.

Gonzalez, N., Quintana, J.M., Bilbao, A., Escobar, A., Aizpuru, F., Thompson, A., & de la Seirra, E. (2005). Development and validation of an in-patient satisfaction questionnaire. *International Journal for Quality in Health Care, 17*(6), 465-72.

Gorgan, S., Conner, M. & Norman, P. (2000). Validation of a questionnaire measuring patient satisfaction with general practitioner services. *Qual Health Care, 9,* 210-215

Greco, M., & Powell, R. (2003). A patient feedback tool. *Primary health care, 12*(10), 38-41.

Hawthorne, G. (2000). The genito-urinary treatment satisfaction. *Center for Health Program Evaluation*, *33*(6), 1-47. Retrieved from http://www.buseco.monash.edu.au/centres/che/pubs/wp117.pdf

_____, (2006). Review of Patient Satisfaction Measure. Australian Government department of Health and Ageing, Canberra.

Heidegger, T., Saal, D. & Nuebling, M. (2006). Patient satisfaction with anaesthesia care: what is patient satisfaction, how should it be measured, and what is the evidence for assuring high patient satisfaction. *Best Practice and research Clinical Anaesthesiology, 20*(2), 331-46.

Jean-Pierre, P., Fiscella, K., Freund, K. M., Clark, J., Darnell, J., Holden, A., et al. (2011). Structural and reliability analysis of a patient satisfaction with cancer-related care measure: A multisite patient navigation research program study. *Cancer, 117*(4), 854-861.

Keegan, O. & McGee, H. (2003). A Guide to Hospital Outpatient Satisfaction Surveys. Practical Recommendations and the Satisfaction with Outpatient Services (SWOPS) Questionnaire. Dublin: Royal College of Surgeons in Ireland.

Munro, B. (1997). *Statistical methods for health care research.* Lippincott: New York.

Shikiar, R. & Rentz, A.M. (2004). Satisfaction with medication. an overview of conceptual, methodologic and regulatory issues. *Value Health*, *7*, 204–15.

Polit, D. & Beck, C. (2008). *Nursing Research: generating and assessing evidence for nursing practice.* Walters Kluwer/ Lippincott Williams & Wilkins.

Silberstein, N.(2010). Are patient satisfaction surveys a good idea. *Podiatry management. March.* Retrieved form www.podiatrym.com.

Urden, L. (2002). Patient satisfaction measurement. *Lippincott's Case Management, 7*(5), 194-200.

Ware, J., Snyder, M., Wright, R., & Davies, R. (1983). Defining and measuring patient satisfaction with medical care. *Evaluating and program planning, 6,* 247-263.

http://www.aubmc.org (2013)

http://www.nursecredentialing.org (2011)