Using the ServQual Scale to Measure Client Satisfaction in a Rehabilitation Teaching Clinic in the Philippines

Kristofferson G. Mendoza*

Author's e-mail: kgmendoza1@up.edu.ph

College of Allied Medical Professions, University of the Philippines Manila

R E S E A R C H   A R T I C L E

Abstract

Background: Teaching clinics provide low-cost health programs while offering valuable learning opportunities for student clinicians, which then contributes to increasing health care accessibility. To date, there is a paucity of literature exploring the satisfaction of patient seen in rehabilitation teaching clinics in developing countries. The Service Quality (ServQual) Scale is a valid and reliable tool that has been used to measure client satisfaction in different work settings and industries.

Objectives: The aim of this study was to demonstrate the usefulness of ServQual in measuring the satisfaction of clients in a rehabilitation teaching clinic in a developing country.

Methodology: A cross-sectional survey was conducted for three months among CTS-AA (Clinic for Therapy Services- Adult and Adolescent Section) clients who are at least 18 years old; have attended at least three sessions; and can read. Prior to administration in CTS-AA, the ServQual scale was translated to Filipino, validated and pilot tested for reliability.

Results: Thirty-two respondents were included in the analysis. there was no statistically significant difference between the expectation and the perceptions of the clients for the domains of reliability (z=1.799, p=0.0721), responsiveness (z=0.839, p=0.4013), assurance (z=1.914, p=0.0556) and empathy (z=1.772, p=0.0764). However, there was a statistically significant difference between the clients' perception and expectation for tangibles (z=4.117, p<0.0001) and between the overall client perception and expectation (z=4.086, p<0.0001). The overall ServQual score for CTS-AA is -0.3782.

Conclusion: The ServQual has been shown to be useful in assessing the satisfaction of clients in rehabilitation clinics and the specific areas that needs improvement. The tool can still be further improved by including items on cost, relationship of students with supervisors and outcomes of treatment.

Keywords: *client satisfaction, Service Quality Scale, ServQual, quality of service, rehabilitation, teaching clinic*

Introduction

According to the World Health Organization (WHO), approximately 15% of the global population or about 650 million people have disability. The global prevalence rate for disability is higher in lower income countries compared to the more developed countries [1]. In the Philippines in 2011, more than 300,000 households belonging to the low-income bracket have family members with disabilities [2]. Given this global need, access to rehabilitation services, particularly in developing countries, are still limited [1]. The WHO has identified ways to help improve access to rehabilitation services. These recommendations target expansion of research and service delivery; reformation of policy and laws; making services and related technology more affordable; and increasing health human resources [1].

Teaching clinics are centers which provide health services through student clinicians who are under the supervision of health professionals. The students are also involved in managing the operations of the clinic. Services in these types of clinics are usually given free-of-charge and most of their clients are the poor and the underserved [3]. Teaching clinics aid in increasing access to health services through the provision of low-cost health programs while offering valuable learning opportunities for student clinicians [4].

The Clinic for Therapy Services (CTS) is an example of a teaching clinic. It is an extension program of the College of Allied Medical Professions, University of the Philippines Manila. The clinic has two service sections, the pediatric, and the adult and adolescent sections. In the adult and adolescent section of CTS (CTS-AA), occupational therapy (OT), physical therapy (PT) and speech pathology (SP) student clinicians provide evaluation, treatment and home programs to adults and adolescents with musculoskeletal, developmental and/or neurological conditions under the close supervision of professional therapists. Most of the clinic's clients belong to the lower-income bracket. Indigent patients receive services for free while those who are able to pay are charged with a minimum fee of 50 pesos (approximately one US dollar). The student clinicians are also involved in managing the day-to-day operations of the clinic which includes receiving and scheduling of patients, cleaning, inventory of supplies and equipment, and responding to queries about the clinic.

Because of the nature of service delivery in teaching clinics such as CTS-AA with the student being the primary service provider, the quality of care in these clinics is sometimes questioned. One of the issues faced by clinics with student clinicians providing the primary services is ensuring a balance between provision of training to the student and provision of quality care to the patients. It is, therefore, important to determine the quality of patient care provided by these clinics [5]. Quality patient care is commonly associated with knowledge, technical skills and expertise [6]. However, aside from technical quality, patient satisfaction also influences outcomes of intervention. Research evidences have shown association of high satisfaction with adherence to treatment plans, improved outcomes and even improved quality of life [7,8]. The insight of clients on the quality of health care delivery in teaching clinics is important in managing and improving their services [9,10]. Service providers can also use the information in identifying areas for improvement and in developing plans to increase their client-base [11].

There is a paucity of literature exploring the satisfaction of patient seen in physical therapy, occupational therapy or speech pathology teaching clinics. Moreover, all of the existing studies were conducted in developed countries such the United States and Australia [12,13,14]. Findings on clients from developed countries may not necessarily be the same for developing countries. Culture heavily affects values and perceptions of a person which may also affect expectations from a service provider [15].

Most of the published studies on client satisfaction among rehabilitation teaching clinics used non-standardized instruments that were developed by the authors themselves [12,13,14]. The questionnaires used are often not comprehensive and do not cover all the domains of client satisfaction. Ellett, Campbell, and Gonsalves [12] conducted a survey in a Community Aid, Relief, Education, and Support (CARES) clinic which involved a multidisciplinary team including medical, nursing, physical therapy, and pharmacy students among others. They used an 11-item tool to inquire about friendliness of staff, hours/days of operation, time waiting, time with the students, time with the supervisor, laboratory and medications, and overall satisfaction. Aside from friendliness, however, there were no other questions exploring empathy, professionalism and other interpersonal skills. Similarly, Doucet and Seale [14] measured the satisfaction of patients in a free post-stroke teaching clinic which is operated by physical and occupational therapy students. They developed a questionnaire with eight items. However, only four of which explore the satisfaction of the patients with the free clinic services. These questions asked about student professionalism, helpfulness and courteousness, clinic management and perceived change in function [14]. In another study by Kent and Keating [13], the authors used the Patient Experience Questionnaire to investigate the response of patients to a primary care clinic composed of students including students of physical and occupational therapy. The authors were very specific though that they were only aiming to evaluate perception and not satisfaction.

There are also unpublished thesis works where the authors developed their own tools to assess client satisfaction in a teaching rehabilitation clinic, specifically the Clinic for Therapy Service. Que and Quiben [16] interviewed 44 parents to rate the quality of service offered by the clinic using a 10-point scale and found out that parents were satisfied and gave an average rating of 8.6. The authors, however, only used a single question to measure satisfaction and were not able to explore further specific areas of satisfaction. Agor, Calaton and Sierra [17] measured the satisfaction of caregivers in CTS-AA with the OT services using a tool they developed themselves The fifty item questions were divided into environment and resources, clinic personnel, and organization and administration. Results showed the caregivers were generally satisfied with the occupational therapy services but noted communication as an area that needs improvement. The tool they developed was rather compressed but lengthy and was not subjected to validity and reliability testing. The study was also limited to only one of the services offered by the clinic.

In 1988, Parasuraman *et al.* [18] proposed a way to measure client satisfaction, in the absence of objective measures, by analyzing the gap between perceptions and expectations. They defined client satisfaction as the difference between a person's expectations of care based on a personal set of standards and perceptions of services received. Satisfaction or dissatisfaction can be determined by analyzing if patients' expectations of care were being met. They developed the Service Quality (ServQual) scale which measures the gap between clients' expectations and clients' perceptions. The ServQual scale covers five domains of client satisfaction including tangibles which investigates facilities, equipment and personnel appearance; reliability which they defined as dependability regarding timeliness and accuracy; responsiveness or the willingness to help clients and provision of prompt service; assurance in terms of courtesy and inspiring trust and confidence; and empathy which is consideration of the clients' welfare.

ServQual has been proven to be a valid and reliable tool across different fields [18,20,21]. A meta-analysis of studies which assessed the strength of the relationship between the over-all service quality (OSQ) and ServQual has shown that their overall relationship is greater than 0.50 (r=0.58; rc=0.68; CI90%=0.50–0.66) proving that ServQual is a valid measure of service quality [21]. Multiple studies have demonstrated the internal consistency of ServQual with reliability coefficients of the different dimensions to be consistently higher than 0.7 [18,22]. Originally created for the marketing industry, ServQual had been used extensively to measure client satisfaction in hospital health care in countries such as Bangladesh, Iran, and China [9,23,24], private physical therapy and rehabilitation clinics in Turkey [25] and in four prosthetics and orthotics facilities in the Netherlands [26].

Although, patient satisfaction in rehabilitation clinics has already been explored using the ServQual, teaching clinics have their own unique set-up that is different from clinics where the clients are directly handled by professionals. Considering this difference in context, results of previous studies can help inform but cannot completely capture the viewpoint of clients in a teaching clinics set-up [10]. The aim of this study, therefore, was to assess the usefulness of ServQual in measuring the satisfaction of clients in a rehabilitation teaching clinic in a developing country. Clinic managers and researchers would benefit from the study through recognizing the potential utility of a standardized instrument in evaluating service-delivery in a resource-limited setting. Furthermore, the feedbacks and views of clients could provide inputs to clinic managers and policy makers for the improvement of service delivery for the impoverished clients.

Methodology

Design

The author utilized a descriptive, cross-sectional research design to measure the gap between client perceptions and expectations in order to appraise client satisfaction in a teaching rehabilitation clinic. This research protocol has been approved by the Ethics Review Committee of the College of Allied Medical Professions of the University of the Philippines. The study strictly adhered to the provisions of the World Medical Association Declaration of Helsinki in June 1964.

Materials

The Original ServQual

The original ServQual tool was developed by Parasuraman and his colleagues [18] for assessing the perceptions and expectations of clients of service quality. It was designed as a diagnostic and monitoring tool that investigates five dimensions, namely, tangibles, reliability, responsiveness, assurance, and empathy. The tool is divided into three sections: measurement of client expectations, measurement of client perceptions and identification of level of importance of each dimension. To measure the expectations and perceptions, there are 22 questions covering the five domains with a seven-point Likert scale ranging from "strongly agree" (7) to "strongly disagree" [1].

The 22 statements in section one asks about the expectations of a client about a service. This matches the 22 statements in section two which ask about their perceptions of the services of the provider being assessed. Statements 1 to 4 represent (tangibles domain); 5 to 9 (reliability domain); 10 to 13 [responsiveness0 ; 14-17 (assurance); and 18-22 (empathy). The third section of the tool asks the respondent to place weights on each domain by dividing 100 points and giving higher points to the domains they consider as more important.

In general, the gap scores simply inform the user if the expectations of the clients were met, exceeded or not met [18, 20]. Gap scores of each domain are conventionally ranked to identify which one is the weakest and the strongest. The same is done for the gap score of each item.

The weakest domain or item is the one with the widest negative gap score.

The strongest domain or item is the one that met or exceeded the expectations, or the one with the narrowest negative gap score. Identifying the weakness allows the user to determine which areas fall short of expectations and need to be improved upon [9,18,20,25,26,27,28]. The ServQual was designed to be used periodically and the numerical values help in monitoring the changes in specific areas over time.

The original ServQual scale did not provide a cut-off as to what is an acceptable gap score [18,20,29]. However, there are previous studies that utilized statistical analysis to determine if there is significant difference between the average perception score and average expectation score of each domain [27,28]

Translating ServQual to Filipino

The ServQual was translated into Filipino using a process similar to the one used by Beattie, Hudson and Lis [30]. An experienced translator was hired to translate ServQual to Filipino. Upon completion of the translation, the author and research assistants reviewed the translated tool to check if the statements were clear, used common Filipino language, and the conceptual meaning was still consistent with the original version. With a few minor modifications, the initial Filipino version was sent to a bilingual physical therapist who translated it back to English.

The results of the back translation showed that the Filipino and English statements were almost similar and needed only minor revisions. After modifying the tool, the author sent the tool to the Sentro ng Wikang Filipino (SWF) of the University of the Philippines Diliman for verification. Some survey items were rewritten to strengthen the applicability of the survey to CTS-AA. After which, it was then pilot-tested at the Pediatric Section of CTS (CTS Pedia) to examine its face validity and reliability. Five caregivers who were able to read and understand English and Filipino were asked to complete the Filipino questionnaire.

The author determined agreement of the respondents' answers in the English version and answers in the Filipino version using intraclass correlation (ICC). Analysis of the ICC's was done by comparing the respondent's answers in section one, section two and the combination of the two sections. In section one of the ServQual, four out of the five respondents had perfect ICCs (1.00). In section two, two respondents yielded perfect ICC; two respondents showed high reliability

(0.97 and 0.93); and one respondent showed moderate reliability (0.53). Similarly, in the analysis of the ICC of the combined expectations and perceptions sections, two respondents yielded perfect ICC (1.00), two respondents showed high reliability (0.98 and 0.95) and one respondent showed moderate reliability (0.52). With this initial analysis, comparing the ICC among the pilot test respondents, the Filipino version of SERVQUAL has shown adequate reliability for utilization. The Filipino version of SERVQUAL may be obtained from the author upon request.

Participants

The authors selected the adult adolescent section of the Clinic for Therapy Services (CTS-AA) as the site for this study. The target population for this study included all clients who are currently receiving services at CTS-AA during the three-month data collection period. In this study, a client is defined as either the patient receiving regular occupational therapy, physical therapy and/or speech pathology services; or the patient's primary caregiver. A primary caregiver is defined as the person who regularly accompanies the patient in his/her therapy sessions at CTS-AA.

The primary caregiver was asked to answer the survey if the patient has difficulties in reading and understanding the questions. However, primary caregivers with difficulty in reading and understanding the questions were excluded from the study. The caregiver or patient need to be at least 18 years old to be included in the study. Data were collected from clients who have attended at least three sessions. Attendance to the three sessions was arbitrarily assigned by the author and was deemed necessary for a client to be familiar with the services and the therapists of CTS-AA. Clients who were employees or relatives of employees of the College of Allied Medical Professions were excluded to avoid any bias.

Data Collection

The data collection was conducted at the CTS-AA for a span of three months. The head of the clinic and the CTS-AA service coordinator permitted the conduct of the study.

The student therapists were not made aware that the survey was being conducted to avoid performance bias. A list of patients was obtained from the CTS-AA service coordinator to identify those who will fit the inclusion criteria. Clients who met the inclusion criteria were either approached after their therapy session or were invited via phone call by research assistants trained to conduct the study.

The research assistants used a script for consistency and to avoid any threat of coercion. Clients who agreed to participate were oriented and asked to sign an informed consent form. They were given an envelope containing the Filipino version of ServQual tool and a pen. Participants were given a week to answer the questionnaire and were asked to return their kits in a secure drop box located in the clinic. This was done to give participants the assurance of confidentiality regarding their identity and response. Demographic data was collected among the participants. Confidentiality was assured by using code numbers instead of names.

The author kept the completed survey forms inside a locked cabinet. The answers were encoded and was stored in a computer. The electronic documents were password-protected known only to those involved in the research.

Data Analysis

The author adapted the formula developed by Parasuraman and his colleagues [18] to analyze the gap between the perceptions and expectations of the clients of CTS-AA. The gap score for each pair of perception-expectation item per client is computed first by subtracting the expectation score from the perception score. The dimensions scores of each client is then derived by getting the average of the gap scores over the items representing each dimension. The total ServQual score for each client is calculated by adding all the dimension scores and dividing the sum by five. The mean of the total ServQual scores for all respondents is then computed to determine the overall ServQual score. The weights given per domain is averaged to determine which of the domains is more important to the respondents.

Due to the relatively small sample size and the assumption that the data are not normally distributed, the author also used a non-parametric test, Wilcoxon Signed Rank Test to determine if there was a statistical difference between the pair of expectation and perception scores for each domain and for the total expectation a perception score. This statistical analysis is similar to the one used by Zarei *et al.* in 2012 (27). The author used Stata Statistical Software version 14 for all the statistical computations.

In order to answer the objective of this study, ratio and proportion using the point and interval estimate were used to determine the prevalence of household food insecurity and stunting among preschool children. Multiple logistic regression was used to determine the association between the exposure and outcome variable in order to control confounder and since the exposure and outcome variable of interest are in categorical type. Moreover, multiple logistic regression was utilized in order to control the effect of confounding variable in the association of the exposure and the outcome.

Results

Out of the 111 clients of CTS-AA during the time of implementation, 71 clients passed the inclusion criteria. Fifty-six clients agreed to participate in the study and were given the survey form. Forty-six clients (82.14%) returned their completed survey form. The survey forms of those respondents who were not able to answer the form completely or answered the form improperly were not included in the analysis. To avoid biasing results of the analysis coming from the incomplete data, the author decided to remove from the analysis survey forms with missing responses. Imputation was not done to avoid overestimating the precision of the data. Only the responses of 32 clients were analyzed which represents 28.83% of the total clients of CTS-AA during the time of implementation.

As seen in Table 1, the mean age of the respondents was 47.844 (13.517) ranging from 20 to 76 years old. In this survey, 68.75% of the respondents were female and 31.25% male. Seventy-five percent of the respondents were caregivers and only 25% were patients. More than half of them have been receiving services from CTS-AA for more than 1 year at the time of implementation. Of those who responded, 81.25% were from Metro Manila 18.75% were from nearby provinces.

ServQual Items

Out of the 22 ServQual items, two items showed a positive gap: "getting right things right the first time" under the reliability domain and "understand the specific needs of their patients" under the empathy domain. As seen in Table 2, the rest of the 20 items were presented with a negative gap score. The item on "having modern looking equipment" under the tangibles domain showed the most negative gap with a score of -1.531.

Based on the findings, the mean expectation score was high. The items on "patients feel safe" and on "having the patients best interest at heart" both received a perfect expectation score of 7.0. The mean score of perception ranged from 5.094 ("having modern looking equipment") to 6.781 ("Patients feel safe" and "understand the specific needs of their patients").

Table 1. *Demographic characteristics of participants/clients in the study.*

	Patients (n=8)	Primary Caregivers (n=24)	Total (n=32)
Sex(Males/Females)	6/2	4/20	10/22
Age (years)			
Mean (SD)	44.75 (17.718)	48.875 (12.095)	47.844(13.517)
Range	20-66	27-76	20-76
Civil Status			
Single	6 (50%)	2 (7.14%)	4 (12.5%)
Married	5 (41.67%)	26 (92.86%)	27 (84.375%)
No Answer	1 (8.33%)	0	1 (3.125%)
Residence			
Metro Manila	7 (87.5%)	19 (79.167%)	26 (81.25%)
Outside Metro Manila	1 (12.5%)	5 (20.8333%)	6 (18.75%)
Duration of Treatment at CTS			
Less than a year	4 (50%)	9 (37.5%)	13 (40.625%)
1 year or longer	4 (50%)	15 (62.5%)	19 (59.375%)
Services Received at CTS			
Occupational Therapy	1 (12.5%)	10 (41.667%)	11 (34.375%)
Physical Therapy	5 (62.5%)	1 (4.167%)	6 (18.75%)
Speech Pathology	0 (0)	3 (12.5%)	3 (9.375%)
Multiple Services	2 (25%)	10 (41.667%)	12 (37.5%)

ServQual Domains

Among the five dimensions of quality, the highest expectation scores were related to assurance and empathy (6.953). The domain with the lowest score was related to reliability (6.600). The highest perception scores were also associated with assurance and empathy among all the dimensions (6.672). The lowest perception score was related to tangibles (5.945).

The domain weight shows the relative importance of each dimension to the respondents. Table 3 shows the mean weight given by the respondents to each domain. According to the mean domain weights, the tangibles dimension is the least important aspect of the clinic for the clients while empathy is the most important, followed by reliability.

As seen in Table 3, the quality gap was computed for all of the dimensions and the Wilcoxon Signed Rank Test showed that there was no statistically significant difference between the expectation and the perceptions of the clients for the domains of reliability (z=1.799, p=0.0721), responsiveness (z=0.839, p=0.4013), assurance (z=1.914, p=0.0556) and empathy (z=1.772, p=0.0764). However, there was a statistically significant difference between the clients' perception and expectation for tangibles (z=4.117, p<0.0001) and between the overall client perception and expectation (z=4.086, p<0.0001). The overall ServQual score for CTS-AA is -0.3782.

The data gathered also allowed the author to examine overall ServQual scores of different subgroups of respondents. Table 4 shows that patients (-0.19) have a smaller overall gap score compared to caregivers (-0.431), and male clients (-0.296) have a smaller negative gap compared to females (-0.404). Clients residing within Metro Manila (-0.365) also have a smaller overall gap than those living outside Metro Manila (-0.432). Clients receiving therapy for one year or more demonstrated a negative gap of -0.57 while those who were receiving therapy for less than a year showed a gap score of -0.079.

Discussion

Persons with disability, particularly those in developing countries have limited access to rehabilitation services [1]. Teaching clinics provide low-cost health programs while offering valuable learning opportunities for student clinicians which helps in increasing health care accessibility [4]. It is important to determine the quality of patient care provided by these clinics using a valid and reliable standardized instrument [5].

The aim of this paper was to demonstrate the usefulness of SerQual in measuring the satisfaction of clients in a rehabilitation teaching clinic in a developing country. In this study, ServQual was very useful in comprehensively investigating the different domains of satisfaction in a rehabilitation teaching clinic. The author was able to gather

Table 2. *Cts-aa Servqual results for each item*

Item and Domain	Mean Expectation Scores (SD)	Mean Perception Scores (SD)	Mean Gap Scores per Item
1. Tangibles item 1 *Modern looking equipment*	6.625(0.942)	5.094(1.594)	-1.531
2. Tangibles item 2 *Physical facilities visually appealing*	6.656(0.827)	5.844(1.194)	-0.813
3. Tangibles item 3 *Personnel are neat in appearance*	6.906(0.390)	6.719(0.813)	-0.188
4. Tangibles item 4 *Service materials are visually appealing*	6.531(0.879)	6.125(0.976)	-0.406
5. Reliability item 1 *Doing what was promised to do at a certain time*	6.813(0.471)	6.125(1.338)	-0.688
6. Reliability item 2 *Sincere interest in solving a patient's problem*	6.969(0.177)	6.438(1.134)	-0.531
7. Reliability item 3 *Get things right the first time*	5.969(1.379)	6.000(1.164)	0.031
8. Reliability item 4 *Provide their services at the time they promise to do so*	6.750(0.440)	6.313(1.148)	-0.438
9. Reliability item 5 *Insist on error-free records*	6.500(1.391)	6.250(1.218)	-0.250
10. Responsiveness item 1 *Tell patients exactly when services will be performed*	6.938(0.246)	6.594(1.160)	-0.344
11. Responsiveness item 2 *Prompt service to patients*	6.781(0.608)	6.594(1.043)	-0.188
12. Responsiveness item 3 *Always willing to help patients*	6.969(0.177)	6.750(0.622)	-0.219
13. Responsiveness item 4 *Never be too busy to respond to patients' requests*	6.844(0.448)	6.719(0.958)	-0.125
14. Assurance item 1 *Behaviour instill confidence in patients*	6.969(0.177)	6.625(0.942)	-0.344
15. Assurance item 2 *Patients feel safe*	7.000 (0.000)	6.781(0.906)	-0.219
16. Assurance item 3 *Consistently courteous with patients.*	6.938(0.246)	6.750(0.762)	-0.188
17. Assurance item 4 *Knowledge to answer patients' questions.*	6.906(0.390)	6.531(0.983)	-0.375
18. Empathy item 1 *Give patients individual attention*	6.938(0.246)	6.656(0.937)	-0.281
19. Empathy item 2 *Operating hours convenient to all their patients*	6.813(0.644)	6.500(1.244)	-0.313
20. Empathy item 3 *Staff gives patients personal attention.*	6.813(0.592)	6.406(1.043)	-0.406
21. Empathy item 4 *Have the patients' best interests at heart.*	7.000(0.000)	6.719(0.729)	-0.281
22. Empathy item 5 *Understand the specific needs of their patients*	6.719 (0.683)	6.781(0.608)	0.063

patient insights on their view of patient services including the specific areas for improvement.

Students are the primary service providers in teaching clinics. The results of this study reflect how the students interact and work with the clients. In this study, there was no statistical significant difference in the interpersonal domains of ServQual, namely reliability, responsiveness, assurance and empathy.

This is consistent with studies conducted in developed countries. Clients generally have a positive view on working with students in rehabilitation teaching clinics [12,13,14]. They respond well to the professionalism, friendliness, helpfulness and respectfulness of the students [13,14]. This is also aligned with the findings of Forbes and Nolan [10], that some of the factors that contribute to patient satisfaction in rehabilitation teaching clinics include the communication skills, preparedness, enthusiasm and confidence of students.

The results demonstrate that the empathy and the

Table 3. *CTS-AA ServQual results for each domain*

Domains	Mean Domain Expectation Score (SD)	Mean Domain Perception ore (SD)	Mean Domain Gap Score (SD)	Z	P value	Mean Domain Weight (SD)
Tangibles (physical facilities, equipment and appearance of personnel)	6.680(0.562)	5.945 (0.893)	-0.734	4.117	<0.0001	17.938 (7.448)
Reliability (dependability with respect to timeliness and accuracy)	6.600(0.492)	6.225 (1.008)	-0.375	1.799	=0.0721	21.562 (9.456)
Responsiveness (willingness to help customers and provide prompt service)	6.883(0.2006)	6.664 (0.846)	-0.219	0.839	=0.4013	19.781 (4.640)
Assurance (courtesy and ability to inspire trust and confidence)	6.953(0.118)	6.672 (0.829)	-0.281	1.914	=0.0556	18.531 (4.579)
Empathy (individualized consideration for patient's welfare)	6.953(0.118)	6.672 (0.829)	-0.244	1.772	=0.0764	22.188 (6.713)
Total Score	6.814 (0.164)	6.436 (0.335)	-0.3782	4.086	<0.0001	-

Table 4. *Mean total ServQual scores of the different subgroups*

Subgroup	Mean Total ServQual Scores (SD)
Caregiver (n=24)	-0.431 (0.829)
Patient (n=8)	-0.19 (0.210)
Male clients (n=10)	-0.296 (0.377)
Female clients (n=22)	-0.404 (0.848)
Clients receiving therapy less than year (n=13)	-0.079 (0.144)
Clients receiving therapy for 1 year or more (n=19)	-0.57 (0.893)
Clients residing in nearby provinces (n=6)	-0.432 (0.426)
Clients residing in Metro Manila (n=26)	-0.356 (0.788)

reliability domains are also what the clients of the clinic consider to be the most important. In this scale, the empathy domain focuses on caring and providing individualized attention to the needs of the client while the reliability domain centers on keeping promises, sincerity in solving client problems, doing things right the first time and correct record keeping.

This implies that training of student clinicians should not only focus on the technical aspects of rehabilitation but also soft skills. Students most likely have different levels of development of their interpersonal skills when they enter the clinic. These interpersonal skills which are important to the client are expected of entry-level therapists and should, therefore, be explicitly included in the teaching clinic's

learning outcomes [31].

A teaching clinic set-up would also mean that a client will work with a certain student for only a short period of time. In the Philippines, a student clinician usually stays in a teaching clinic for a month before moving to a different affiliation center.

The fast turnover of student therapists leads to variations in patient handling, interpersonal relationship and treatment techniques. Clients are more satisfied when they are seen by a single therapist than by multiple therapists for a period of time [32]. Clients who are receiving therapy for several months are likely to experience greater turnovers of student therapists in the clinic. This may also be the reason why clients

who have been with the clinic for lesser time had a smaller overall gap compared with those who have been receiving therapy for more than a year. In a local study on client satisfaction in the Philippine General Hospital, Alviar [33] observed that the newer clients are generally more satisfied than older clients. Moreover, newer clients are still uncertain of what to expect and have no basis for comparison of the services they will receive. The unabated changing of student therapists every month is one possible factor affecting client satisfaction. Thus, this offers one consideration for teaching clinics when deciding the length of the student practicum or affiliation with them.

Of the five domains of ServQual, the tangibles domain is the only one which registered a statistically significant difference between perceptions and expectations. Although, the tangibles domain is also considered the least important by the clients, this domain may have been heavily influenced by the gap in the overall perceptions and expectations of service.

The equipment and materials in CTS-AA do not look modern but they are still functional and can still be effectively used in therapy. Teaching clinics, being more accessible to clients with their low cost, caters to a large number of clients on a day-to-day basis.

The equipment and clinic itself are prone to wear-and-tear because of this high utilization rate. Clearly, the management of teaching clinics still need to focus on this area in order to improve the overall client satisfaction. Budget should be allotted, not only to acquisition, but also to sustain its maintenance.

The advantage of using a standardized instrument in assessing client satisfaction is assurance that the tool and therefore the results are valid and reliable. Using an existing tool is easier than to develop one's own. Moreover, when a standardized instrument is utilized in several teaching clinics, the results can easily be compared.

The ServQual is a standardized instrument that has been designed to be applicable to different kinds of industries and services. According to Parasuraman *et al.* [18], this tool contains the basic domains of service and can still be customized to fit certain industries. In the case of teaching rehabilitation clinics, for example, the tool was very useful in identifying specific areas of improvement. However, other dimensions can be added to increase the utility of the tool such as cost of services, outcomes, and relationship between clinical supervisors and students. Forbes and Nolan [10] have identified these as factors affecting satisfaction in teaching clinics in developing countries. Although, cost is not a concern for CTS-AA because it is a charity clinic, it may still be a concern for clients in other teaching clinics that ask their clients to pay a fee. They also observed that even if students are the primary service providers, clients are more satisfied when they see a positive interaction between the supervisor and the students. Clients are more satisfied when they observe positive changes in function as a result of their treatment [10].

The Filipino version of the ServQual, which we have used in the study underwent reliability testing during the pilot test phase of the translation. The tool would benefit from further validity and reliability testing to improve on its psychometric properties prior to use in other clinics.

The study had some limitations. Only one clinic was included in the study which affects the generalizability of the results to other teaching clinics in the country. Although the results provide valuable insights as to the views of the clients with the quality of services they receive from a rehabilitation teaching clinic, additional studies involving more teaching clinics are warranted to augment the results of this paper.

The sample size is small representing only 28% of the total clients of CTS-AA during the time of implementation. Increasing the number of respondents will improve the generalizability of the result. Some of the completed surveys were excluded in the analysis because of incomplete responses and errors in answering. A more extensive orientation on how to correctly fill out the forms may help in preventing this in future studies.

The authors also limited the respondents to patients and primary caregivers aged 18 and above. We recommend to include also the adolescent client population to help increase the number of respondents. However, measures should be in place to minimize ethical risks in including vulnerable populations. The periodic use of ServQual will aid in monitoring the changes in the perceptions and expectations of the clients that parallel the teaching clinic's performance through the years.

Conclusion

In conclusion, the ServQual has shown to be useful tool in assessing the overall satisfaction of clients in rehabilitation clinics and in identifying the specific areas that need improvement. Clients, generally, have a positive response to working with student clinician. Clinic managers should focus on developing the interpersonal skills of

students which are considered important by clients.

The ServQual tool can still be customized to assess rehabilitation clinics by including items on cost, relationship of students with supervisors and outcomes of treatment. This study was the first to measure clients satisfaction in a rehabilitation teaching clinic in a developing country using the ServQual scale. Information gathered in this study may be used as a benchmark for other rehabilitation clinics using the same model of service provision.

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