

Parent/Caregiver Satisfaction with Physiotherapy Services to Children in Al Wasl Hospital in Dubai

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ABSTRACT:

Parents/caregivers satisfaction is an important indicator in evaluating the quality of care children receive at the physiotherapy department. This study aimed at measuring parents/caregivers satisfaction of physiotherapy services offered to their children at physiotherapy department of Al Wasl Hospital in the UAE. A questionnaire was developed to assess parents/caregivers satisfaction with physiotherapy services offered to their children. It was distributed to 80 subjects. Data were analyzed using the Statistical Package for Social Sciences (SPSS, v.15). 63 questionnaires were returned. 6 was excluded due to missing values and 57 were valid. Just over half of the respondents were females (71.9%, n = 41). Majority of the respondents were from the age group 25 – 31 (42.1%, n = 24), locals (64.9%, n = 37), married (94.7 %, n = 54), Muslims (93%, n = 53), their income per month is less than 10,000 Dhs. (52.6%, n = 30), have high school degree (47.4%, n = 27), and their children received 1 – 10 sessions of physiotherapy treatment (56.1%, n = 32). The results of the questionnaire showed that parents/caregivers were highly satisfied with the physiotherapy department aspect, reception, efficient use of time while treating their children, ease referral to physiotherapy and communication with the therapists. Additionally, they were uncertain about financial aspect, availability of therapists for further consultation, improvement of treatment sessions; although 29.8% were agreeing that, there is a need to improve the sessions. In addition, 23/57 of the parents/caregivers (40.4%) were highly dissatisfied because therapists are not taking enough time to treat their children. This study showed that 94% of parents/caregivers were satisfied with physiotherapy services offered to their children at physiotherapy department of Al Wasl Hospital. Results demonstrated high level of satisfaction with all physiotherapy services, except the financial aspect and the quick treatment of the children. Results can be used by the physiotherapists to improve future parents/caregivers experiences with a view to improve their attendance and compliance with physiotherapy services for children with different disabilities.

KEYWORDS: Caregiver, Satisfaction, Physiotherapy, Services, Al Wasl Hospital, Health care System.

Date of Submission: 10-11-2020

Date of Acceptance: 25-11-2020

I. INTRODUCTION:

Today, Health care systems are complex, technically proficient, market-driven and competitive. According to (Jeanette M. Conner and Eugene C. Nelson, 1999) "One outcome of this environment is the recent phenomenon in the health care field of "consumerism". Strong emphasis is being placed on customer service, with organized efforts to understand, measure, and meet the needs of customers' served. Evidence of this phenomenon is found in the numerous publications that focus on patient satisfaction as a key outcome measure of health care". Patient satisfaction is defined as meeting the perception of patient's needs and expectations; and it is rapidly becoming a primary indicator for evaluating and comparing quality in health care plans.

Rehabilitation services are internationally recognized as one of the primary components of health care. Physiotherapy is considered as one of the rehabilitation services that most of the patients or parents who are having children with disabilities seek to alleviate the effects of that disability.

In the current healthcare environment, physiotherapists are facing a challenge of practicing in an increasingly competitive marketplace. Patients have various options when choosing providers due to the rapidly increasing number of practicing physiotherapists and the widespread use of "care extenders". As marketplace competition continues to grow, patient satisfaction with physiotherapy is emerging as an outcome variable of critical importance. Satisfied patients will interact better with the course of therapy, remain loyal to the therapist, and will seek additional physiotherapy care when needed (Paul et al. 2002; Bush et al. 1993; Nitse and Rushing 1996).

Anderson and Ventor (1997) stated that physiotherapists' job is not only to treat the children but also to educate parents/caregivers about their children's diagnosis, and to provide them with sufficient information about expected outcome and the available services. By this, all parents/caregivers will be empowered to participate with the physiotherapist in order to achieve the goals established to treat their children.

Parent/caregiver satisfaction has not been closely monitored in physiotherapy. There is a lack of reports in the literature for determining the dimensions of parent satisfaction in physiotherapy. This deficiency contrasts sharply with the reports for other health care professions (Comstock et al. 1982; Baldwin et al. 1993; Forbes et al. 1995; Bond et al. 1992).

In this research, parents/caregivers satisfaction with physiotherapy services for their children will be measured.

Objectives of Study:

The objective of this study is to measure parents/caregivers' satisfaction with the physiotherapy services offered to their children at the physiotherapy department at Al Wasl Hospital.

Study Significance:

This study gives information on the satisfaction of parents/caregivers experience. The results of this study will be useful and beneficial to the department's manager and the physiotherapists of Al Wasl hospital to improve the quality of the services at physiotherapy department. By measuring satisfaction, it will be much clear to the department if the parents/caregivers are satisfied or not. If they are satisfied with the department services, it will motivate the staff to work harder in order to achieve high level of excellence in satisfying its patients/parents. Moreover, if they are not satisfied, it will highlight the weak areas that need improvement, so they should pay more attention in these areas, set plans for improvements and implement them as soon as possible. Furthermore, the manager of physiotherapy department may use the information to organize short courses and workshops to improve the level of the qualified physiotherapists. Lastly, the information would be valuable to the researchers interested in pediatrics and satisfaction with service provision.

Hypothesis:

Ho: Parents/caregivers are not satisfied with the physiotherapy services offered at Al Wasl Hospital in the United Arab Emirates at ($\alpha = 0.05$).

Limitations:

One of the limitations we encountered is the lack of cooperation with the management of Al Wasl Hospital. They were very sensitive towards distributing the questionnaire. The other problem we faced is the hesitant of parents/caregivers on filling up the questionnaire because of privacy.

Procedural Definitions:

Parent and caregiver

In this study, the term 'parent' refers to the child's biological parent while 'caregiver' refers to other carers such as grandparents, other supporters or relatives. The two terms are used because their biological parents may not necessarily come with them to the department.

Physiotherapist

Physiotherapist is a health professional who provides services to clients/patients with impairments, functional limitations, disabilities or changes in physical function and health status resulting from injury, disease, or other causes.

Disabilities

Disabilities include mental retardation, developmental delay, Down's syndrome (DS), autism and cerebral palsy.

Customer

Customer is a person who receives services or products from other personnel or other groups. Customer can also be referred as the purchaser, the supplier or the contractor. A customer in the healthcare sector refers to any person who uses the services. This was the key meaning for which it was used in this research.

II. LITERATURE REVIEW:

The literature review highlights the context relevant for the study of parent/caregiver's satisfaction with physiotherapy services for their children with disabilities. Accordingly, it will show a background on satisfaction and reviews the theoretical concepts that have been put forward by previous researchers to explain satisfaction in business, health care and in physiotherapy.

Previous researches refer to the recipient of service in the marketing industry and in health care sector to either customer or patient. Customer satisfaction in the marketing industry is connected to gain more sales and profit (Woodside et al., 1989), while in healthcare it highlights the provision of quality outcomes, which is the goal of every health facility (Steiber & Kowinski, 1990). Accordingly, every health provider is trying to

deliver the expected outcomes in order to satisfy the patient/customer by providing superior service. Many studies have presented some of the outcomes from patient satisfaction such as the adherence/compliance with medical advice, ability to measure the success of delivering information, and to predict patient re-attendance for further care and improvement in health status (Weiss et al. 1990; May S. 2001). These outcomes represent the benefits of customer/patient satisfaction in the healthcare sector. Furthermore, patient satisfaction has become an increasingly important issue in health care. Numerous contemporary trends like continuous quality improvement and managed care have shown the importance of the customer's perspective in the delivery of health care (Hsieh et al. 1991; Schlenoff, 1994). Additionally, because satisfaction is linked to customers' perceptions of quality, dissatisfaction is not only means losing the customer itself, but also it means losing the organization's name (Steiber & Kowinski, 1990).

In literature, there is a mixed opinion regarding whether or not satisfaction levels are a reflection of healthcare quality (Hudak et al. 2000), but the consensus is that patient satisfaction is reflection of their perception of the quality of the healthcare they receive. Indeed, duration of a patient appointment or arrangements for flexible opening times at a clinic are examples of healthcare services that can be improved using patient feedback.

Patients reports high levels of satisfaction with their health care (Susan et al. 1999), although race and sex differences have been reported. (Hsieh and Kagle 1991) summarized the literature on correlating patients' satisfaction with physicians and they found that women were more satisfied than men were, African Americans were less satisfied than Caucasians, and elderly people were more satisfied than people of other age groups were. In addition, people in good health were more satisfied than people with poor health, and people who are receiving care through fee-for-service practices were more satisfied than those receiving care through prepaid group practices.

Patient satisfaction has been conceptualized in recent years as a multidimensional construct (Paul et al., 2002) The multidimensional nature means that a person may be strongly satisfied with one or more aspects of health care and at the same time he is dissatisfied with other aspects. It must often be measured in an indirect manner (from self-report measures) because it is usually not observable directly (Hudak et al., 2000). An example of a simple self-report method to assess satisfaction is to ask global questions like, "Overall, I am satisfied with my care". Although these questions are easy to administer, they do not give information about why a person is or is not satisfied; therefore, many authors (Hudak et al., 2002; Susan et al., 1999) suggest the use of multidimensional measures.

Many satisfaction dimensions have been identified in the literature, and the most common dimensions are: the patient-practitioner relationship (personality attributes of the practitioner, communication, technical competence), location, accessibility and convenience, continuity of care, cost and the financial aspects, the physical environment in which the therapy is given (e.g. seating, lightening, cleanliness, equipment, noise level) and expectations (Paul et al., 2002; Hudak et al., 2000). Although many authors (Bush et al. 1993; Linder-Plez et al., 1985; Hall et al., 1988; Nites et al., 1996) had described the use of patient satisfaction measures with overall medical care, the applicability of these measures to patient satisfaction with physiotherapy is uncertain. Paul, Mary and Martha (2002), have suggested that "the unique aspects of care related to outpatient physiotherapy – such as the need for frequent visits over a short period of time and the need for patients to stay in the clinic for sessions that are longer than those of a typical physician's visit- may require a different, "specialty-specific" scale".

There are two concepts in measuring patient satisfaction with physiotherapy. The first concept is "patient satisfaction with physiotherapy treatment" and the second concept is "patient satisfaction with physiotherapy outcome". Both of them are separate entities, independent of each other and are influenced by different factors (George et al., 2005). Hudak and Wright (2002) stated that "patient satisfaction with outcome" is related to the results of treatment, whereas "patient satisfaction with physiotherapy treatment" reflects the service the patient received during the course of treatment. Such distinction seems especially relevant for patients who are satisfied with different treatment domains (i.e. access, cost and interpersonal factors) but remain dissatisfied with their resultant ongoing symptoms (Sarah et al., 2008). In addition, it is now accepted that "patient satisfaction with physiotherapy" is a multidimensional parameter rather than a uni-dimensional parameter (Paul et al., 2002; Hudak et al., 2000). Uni-dimensional measures of patient satisfaction provide an easy & quick means of measuring patient satisfaction, without providing information regarding which aspects of a service patient may have been satisfied or dissatisfied with (Hudak et al., 2000). Although no definite set of factors or domains for "patient satisfaction with physiotherapy treatment" exists, May S. (2000) suggests that patient should be involved in the definition of these factors to increase the construct validity of a questionnaire.

A study showed that patients are highly satisfied with their physiotherapy, as they are with other health care professionals. Additionally, consistent with the literature from other health care professions, provider conduct has been identified as a factor in the satisfaction of patients with physiotherapy (Susan et al., 1999). Data showed that provider characteristics of friendliness and caring are most highly regarded by patients

receiving physiotherapy (Roush, 1995). Satisfaction differences between male and female patients have not been reported, and data from Roush showed no correlation between satisfaction and degree of disability in a group of patients with multiple sclerosis. This latter result contrasts with the positive relationship reported between patient's health and satisfaction with physicians (Hsieh et al., 1991).

Many questionnaires exist to measure satisfaction with medical clinic visits or hospitalizations (Hays et al., 1991; Bruster et al., 1994). Physical Therapy has many characteristics that may influence patient satisfaction: the interaction between the physiotherapist and the patient often takes longer than a routine medical visit, usually the treatment session requires the patient's active participation and it involves more physical contacts (Dominique et al., 2002). Therefore, a satisfaction questionnaire used for medical clinic visits may not be optimal for physiotherapy.

Indeed, a study measured patient satisfaction with private physiotherapy treatment for musculoskeletal pain in Ireland using a validated outcome measure. Results showed high levels of satisfaction with all components of physiotherapy treatment, except cost, and provided valuable patient feedback regarding their physiotherapy treatment for musculoskeletal pain (Sarah et al., 2008).

In addition, a study of parents/caregivers of children with cerebral palsy (CP) who received physiotherapy services from the CP clinic at Mulago Hospital showed that they were satisfied with the outcome of the services and interpersonal relationship with the physiotherapist. However, some parents/caregivers were concerned with some aspects of care, like information on diagnosis and prognosis, time spent with the parent/caregiver, the teaching, communication and involvement of parent/caregiver in decision-making (Irochu-Omare, 2004).

Byrne N.M. & L. Hardy, 2005, conducted a study to measure satisfaction of families of cystic fibrosis (CF) children using a questionnaire. One hundred and six questionnaires were sent with a response rate of 50%. The community physiotherapist had reviewed Eighty-nine percent of respondents. Ninety-one percent were satisfied with the overall service provided. They felt involved in the treatment plan (94%) and understood the reasons for follow up visits (92%). Eighty-five percent of respondents had a contact number for the community physiotherapist. Comments from parents were generally positive. Many families requested increased input in the home as they found it more beneficial than review in the clinic setting. There was a high rate of satisfaction with specialist physiotherapy support in the community for children with CF among families who responded to the patient satisfaction survey.

Patient satisfaction is not understood well in physiotherapy. Although the use of informal patient satisfaction surveys is increasing in the profession. Numerous points about patient satisfaction in physiotherapy, however, have emerged (Susan et al., 1999).

Finally, few studies have been written up in literature on parent satisfaction in physiotherapy. "However, Unwin and Sheppard (1995) in their study suggested that parent satisfaction should be investigated as an outcome measure for pediatric physiotherapy services. Similarly, Newacheck and Stein (1996) recommended that the monitoring and evaluation strategies of services for children with chronic illnesses and disabilities should focus on outcomes".

Satisfaction:

Customer satisfaction is monitored and managed in many businesses in order to know how to increase their base, loyalty, revenue, profits, market share and survival. Although greater profit is the fundamental driver, exemplary businesses focus on the customers and their experience with the organization. Exceptional companies work to make their customers happy and see customer satisfaction as the key to their survival and profit. Customer satisfaction in turn hinges on the quality and effects of their experiences and the goods or services they receive.

The definition of customer satisfaction has been widely debated because many organizations attempt to measure it. Customer satisfaction can be defined in different situations and connected to both goods and services. It is based on the customer's experience of both personal outcomes and contact with the organization (the "moment of truth" as it is called in business literature).

Customer satisfaction varies depending on the situation and the product or service. "A customer may be satisfied with a product or service, a purchase decision, a salesperson, store, service provider, or an attribute or any of these. Some researchers completely avoid "satisfaction" as a measurement objective because it is "too fuzzy an idea to serve as a meaningful benchmark" (George et al., 2003).

Instead, they focus on the customer's whole experience within an organization or service contact and the detailed assessment of that experience. For example, reporting methods developed for health care patient surveys usually ask customers to evaluate their providers and experiences in response to detailed questions such as, "How well did your physicians keep you informed?" These surveys provide "actionable" data that show obvious steps for improvement.

Customer satisfaction is a greatly personal assessment that is highly affected by individual expectations. "Some definitions are based on the observation that customer satisfaction or dissatisfaction results from either the confirmation or disconfirmation of individual expectations regarding a service or product. Instead of asking whether customers are satisfied, they encourage companies to determine how customers hold them accountable" (George et al., 2003).

A satisfied customer within the private sector has been defined by some researchers as "one who receives significant added value" to his/her bottom line—a definition that may apply just as well to public services (Mack & Peter, 1989).

In the public sector, the definition of customer satisfaction is often connected to both the personal interaction with the service provider and the outcomes experienced by service users. "For example, the Urban Institute and Mathematica conducted customer satisfaction surveys for the federal child support enforcement system. The definition they developed addresses three aspects of customer satisfaction: satisfaction with client-worker interaction, whether in-person, by phone, or by mail; satisfaction with the support payment (e.g., its accuracy and timeliness); and satisfaction with the effect of child support enforcement on the child" (George et al., 2003).

Importance of Customer Satisfaction

The main goal of any business/organization is to satisfy its customers. "Businesses recognize that keeping current customers is more profitable than having to win new ones to replace those lost. (Leadership Factor, N.D.). Management and marketing theorists underscore the importance of customer satisfaction for a business's success (McCull-Kennedy & Schneider, 2000; Reichheld & Sasser, 1990). Accordingly, the prestigious Malcolm Baldrige National Quality Award recognizes the role of customer satisfaction as the central component of the award process (Dutka, 1993). Some recent statistics showed the benefits of good customer satisfaction and the costs of poor customer satisfaction on businesses.

Good customer satisfaction affects the profitability of nearly every business. For example, when customers have good service in an organization, they will convey good information to others about this organization. Nearly one-half of American business is built upon this informal, "word-of-mouth" communication. The profits of organizations can increase by 25% or more, if customer retention has improved by even few percentage points. Recently, there is an average increase of 2.37% of return on investment of University of Michigan in every percentage increase in its customer satisfaction. Generally, satisfied customers improve business and dissatisfied customers impair business. Therefore, customer satisfaction is like an asset that should be monitored and managed just like any physical asset. On the other hand, customer dissatisfaction has a larger effect on the bottom line. Customers, who receive poor service, will tell to between fifteen and twenty people about their dissatisfaction. "The average American company typically loses between 15 and 20 percent of its customers each year (Griffin, 1995).

The cost of gaining a new customer is ten times greater than the cost of keeping a satisfied customer (Gitomer, 1998). In addition, if the service is particularly poor, 91% of retail customers will not return to the store (Gitomer, 1998). In fact, if the service incident is so negative, the negative effects can last years through repeated recollection and recounting of the negative experience (Gitomer, 1998; Reck, 1991)"

Background of the concept satisfaction in health care sector

Though satisfaction is considered as an important concept, many researchers find it an elusive construct that is hard to describe or define (Goldstein et al., 2000; Steiber & Kowinski, 1990). "The reason given is that satisfaction is always relative to the patient's expectations and changes with the changes of the expectations of what one would normally expect to happen even though the actual health care may stay constant" (Irochu-Omare, 2004).

Earlier researcher, Fitzpatrick (1991) has studied patient satisfaction, but did not define satisfaction clearly, but described it as an outcome reflecting the quality of health care. As an outcome, satisfaction was defined as a useful measure in the assessment of the patterns of communication and information-giving between the physician and the patient, the involvement of patient in decision-making about care, and as a measure of the physician's provision of reassurance to the patient (Fitzpatrick, 1991). Goldstein et al. (2000) defined satisfaction specifically as: a health care recipient's reaction to aspects of the service delivered which over time resulted into perception of quality of service or care (Irochu-Omare, 2004).

Additionally, authors found that patients' lack of expertise to gauge clinical aspects made it extremely hard for them to evaluate the healthcare quality effectively. For example, Haas (1999) in a qualitative study of patients' experiences of surgery for gynecological cancer found that "a lot of women felt that their limited experience with/or knowledge about hospitals, medical procedures, and other technical details rendered them less than competent to form expectations about such factors. Yet, many of them finally expressed both general satisfaction and specific dissatisfaction in aspects of care with which they were dissatisfied" (Irochu-Omare,

2004). As a result, patient satisfaction has continued to be conceptualized as a multidimensional construct in which a person may be highly satisfied with one or more areas of a health care and at the same time dissatisfied with other areas.

Methods of Collecting Customer Satisfaction Information

There are many methods to collect information regarding customer satisfaction. Prior to selection of any methodology, some factors should be considered such as information needed, accessibility to customers, resources, sample to be used, time, and so forth. Each has its own strengths and weaknesses in relation to one another. The following is a brief overview of the most commonly used methods:

1. Written Surveys: In this common method, customers are asked to complete a document that has questions regarding satisfaction, which are tailored to fit the needs of both the organization and customer base. The questions or the statement may be open-ended or close-ended, and often involve Likert-type scales. This document can be completed in person, through online or, postal system. Advantages of this method include a lower cost per completed survey and reduce pressure on customers to provide the answers quickly. Disadvantages include poor response rates, poor quality control due to lack of monitoring, incomplete surveys, and bias due to non-response.

2. Tele phone Surveys: This method used sometimes due to geographic distances or time constraints. It involves the utilization of interviews through telephone of customers that either follows a planned, specific series of questions, or involves the discussion of information based upon the responses provided. Advantages include reasonably low cost, monitoring of interviews for improved quality control, higher response rates, less bias due to non-response and shorter time needed for completion. While disadvantages include sampling bias (telephone ownership), difficulty reaching customers, and the quick responses to telephone surveys do not always allow for adequate thought.

3. Focus Groups: This method involves bringing eight or more customers together by invitation to answer prepared questions presented by a moderator. The average group lasts about one to one and half-hours and the dynamics often give a wealth of feedback in a short time. Usually, all comments are recorded and transcribed, and techniques may be used to identify themes.

Advantages include the possibility to ask complex questions and more in-depth responses. Disadvantages include qualitative nature of data and the inability to generalize to larger populations.

4. In-Depth Interviews: This method is used when the most anecdotal information is required regarding customer satisfaction. This often gives a more personal format in a one-on-one setting that can encourage a customer to share & discuss possible controversial or difficult issues. This involves customers who have stopped using an organization, use competitors, or employees discussing issues about the organization. This is a requisite for individual client gap analyses – identifying the break between expectation and actual performance.

Advantages include asking complex questions is possible, more in-depth responses gathered, responses that may be viewed more negatively by a group are obtained, and a longer interview is often possible. Disadvantages include a higher cost than other methods, a longer time needed for completion, and the number of completed interviews is usually much less than other methods.

Uses of Customer Satisfaction Information

There are many possible uses of information about customer satisfaction. Therefore, customer satisfaction results can help:

1. Presenting the current standing of customer satisfaction.
2. Identifying important customer requirements.
3. Monitoring customer satisfaction results over time.
4. Providing comparisons with other companies/organizations.
5. Determining the effectiveness of business practices.

History of Al Wasl Hospital

Al Wasl Hospital (AWH) is located in Dubai, UAE It is a mother and child hospital. It was officially opened in 1986. It is the most known hospital in the Department of Health and Medical Services (DOHMS). AWH, as a specialized hospital, is a highly sophisticated and equipped with Special Care Baby Unit, Thalassaemia Centre, Pediatric Surgery Unit and Fetomaternal Unit.

The mission of AWH is to provide and maintain customer focused, high quality health services in a professional environment to women and children for all UAE nationals, Dubai residents and referrals. The vision is to be the leading model of excellence in health care and strive to be the hospital and employer of choice in the region through fostering a friendly and safe environment. Also providing continuous education for health care providers. Values are rooted in achievement, leadership, willingness to learn, accountability, sharing and Loyalty.

The building is made of two floors divided by a main corridor, on the right hand are the patient wards and on the left are the specialized departments and services. The distinctive feature of Al Wasl Hospital is the link between the Delivery Suite, the Special Care Baby Unit and the Operation Theatre, which in turn is linked to the Intensive Care Unit. The children wards are linked to a central children entertainment area functioning under the supervision of a play therapist and a teacher who take care of the children that have to stay in the hospital; this area has a link to an outside garden that has a playground for the children.

AWH consists of 397 beds distributed on the following services: Gynecology, Obstetrics, Pediatrics, Pediatric Surgery and Thalassemia. They are equipped with all the required services and highly sophisticated equipment to offer the best patient care. The Central Blood Donation Center of DOHMS is a separate building in Al Wasl Hospital. It is highly equipped with the most sophisticated machines to perform all required tests for the donated blood.

The Thalassemia and Genetics Center of AWH is considered one of the most advanced centers in the Middle East. It competes with international centers for its achievements, offering excellent services for the community including family genetic counseling and social rehabilitation for patients as well as performing highly sophisticated tests of Cytogenetic, Biochemical and Molecular Genetics.

Medical Units:

1. Anesthesia and Intensive Care Unit:

This department has 10 experienced anesthesiologists who are capable to meet all patient needs in anesthesia, analgesia, intensive care & reanimation.

Services:

- Offering the services of Intensive Care for the critically ill patients, both adults & children.
- Rendering general and regional anesthesia during various major and minor surgical procedures in premature, neonates, infants, children & Gynecology and Obstetrics patients, both as elective & emergency operation.
- Offering epidural pain relief for mothers who need it during childbirth.
- Providing pre-anesthesia check up in the outpatient department, wards & the anesthesia clinic.
- Offering postoperative pain relief.
- Teaching anesthesia to medical school, nursing school, interns & residents.
- Updating the anesthesia equipment & practices on continuous bases.

2. Pediatrics and Neonatology Unit:

The AWH Neonatal Unit is a major referral unit receiving pre-term and term neonates from Dubai and Northern Emirates. The unit is equipped with the latest technology to treat sick neonates. The monitoring and support facilities at each bedside allow delivery of maximum care to critically ill infants of all gestation ages.

Services:

Provides services for patients with the following:

- Surgical disorders.
- Metabolic disorders.
- Other neonatal medical problems.
- An outpatient follow up service is offered to discharge neonates in the outpatient department.

3. Pediatric Surgery Unit:

The department of Pediatric Surgery at AWH was established in 1987. It is one of the centers in Dubai and Northern Emirates providing the service of general pediatric surgery and neonatal surgery. The primary concern of this department is the diagnosis, pre-operative and post-operative management of surgical problems in children and new-born, recognizing these problems and correcting them surgically to ensure the good quality of life that parents are hoping for. Specializing in the surgical care of children, the department works with various specialists oriented toward servicing the children and providing high quality, safe and emotionally supportive care for the patients.

Services:

- Our services provide a broad range of surgical care to the new born, infants, children and early adolescents including diagnosis, consultation and management and follow up of inpatients and outpatients, as well as managing critically ill new born surgical patients in the special baby care unit.
- The surgical care offers the following services:
 1. Neonatal surgery of birth defects some of which maybe life threatening to premature and full term infants.
 2. Gastro intestinal, genito urinary and oncology surgery.
 3. Burn care.

4. Laparoscopic surgery.
5. Day care surgery.

4. Pharmacy:

AWH Pharmacy operates 24 hours to render the following services:

- Dispensing of pharmaceuticals, vaccines, narcotics, psychotropic and biotech products.
- Counseling patients on drugs and drug usage techniques.
- Dissemination of information on drugs to medical, paramedical fraternity within the hospital.
- Training pharmacy students on hospital pharmacy practices.
- Continuing education and upgrading of pharmacy staff.
- Participation in various research activities conducted in association with other departments.
- Providing IV Admixture & TPN Services.

5. Physiotherapy Department:

The physiotherapy department offers fully comprehensive quality services to the patients, provided by well-qualified and dedicated staff assisted with up-to-date equipment and adequate premises. The services of this department are offered to both inpatients and outpatients. It includes the following:

Services

- Antenatal & Postnatal Exercises
- Occupational Therapy
- Neurology, Pediatric Physiotherapy
- Pediatric chest physiotherapy
- Treatment of burns
- Congenital feet deformities
- Post-operative OBS/GYN services for inpatients
- Post-delivery physiotherapy
- Orthopedic physiotherapy.

6. Radiology:

The Radiology Department provides imaging services required by OBS/GYN and Paediatric patients inclusive of General X-ray and ultrasound. The department provides Imaging services and consultation to assist in making a proper diagnosis for patients utilizing up-to-date equipment and techniques.

Services

Provides inpatient, outpatient and emergency imaging services including general x-ray and ultrasound to OBS/GYN, Pediatric and pediatric surgery patients. Liaises with other radiology units of DOHMS to provide CT, MRI and nuclear medicine services for AWH patients.

Patient and Visitor Services:

Admission to the hospital: is through out-patient clinic or the emergency unit, for admission through out-patient clinic, the doctor will refer the patient to the admission office for the necessary procedure. In addition, in case of emergency the patient will be admitted to hospital through emergency unit. Customer Services' officers are available to assist the patient, patient's family and the visitors during the patient stay in hospital, so if the patient having any query, compliment or complaints they can contact them. Additionally, **Tawaseel service** is a service that provides comprehensive information to patient on the following: Medical reports, birth certificates and health cards. The **Ladies Club** of DOHMS in AWH offers important community services; it acts as a link between the department and the community.

Emergency Services in AWH is a unit receives patients with medical emergencies related to the specialties available for women and children, the services offered to children below 13 years of age with medical and surgical problems. In this unit, they adopt a triage system to give priority for patient to access the services based on their conditions. After Assessment the patient will be assigned with triage color code as such: Red : level 1 immediate , Orange : level 2 very urgent ; will wait up to 15 min , Yellow : level 3 urgent ; will wait up to 30 min , Green : level 4 not urgent ; delay acceptable up to 60 min , Blue : level 5 not urgent ; delay acceptable from 120 to 180 min. If the patient case as not urgent delays acceptable, they will have the following choices: wait to get the turn to be seen by emergency unit doctor or leave the emergency unit and report to the health center in catchment area or Access to the walk in clinic in Al Wasl Hospital.

In the booking procedure for pregnant, there are documents required such as; photocopies of husband and wife passports, photocopy of the marriage certificate and health card from DOHMS. Booking should be

done within the 3rd month of pregnancy and the patient should be referred from Primary Health Center for booking.

Room Facilities: Each patient unit is equipped with a telephone, a television with a satellite facility and a locker with calling facility. **Personal valuables:** When admitted to the hospital, his/her valuables will be kept under hospital's custody until the date of discharge.

Other services include booking an appointment, cafeteria, home delivery certificate, lost & found, cash machine, medical reports, certificate of estimated date of delivery, certificate of fitness of air travel, security, death certificate, special parking and health card.

Research Methodology:

Scope

The sample for this survey included parents/caregivers of the children with disabilities who are currently receiving services at the physiotherapy department in AWH, Dubai. This department provides treatment to children who have physical disabilities such as spina bifida, down's syndrome and cerebral palsy, as well as developmental disabilities such as autism and mental retardation not only to Dubai but to all people live in the UAE.

Questionnaire design

To collect the required data, a questionnaire was designed in both English and Arabic and two main factors were taken into consideration. Firstly, measuring the satisfaction of the parents/caregivers generally in all areas including parking area, the department itself, reception, financial aspects, communication with the therapists, time spent with the therapists, access/ availability/convenience and general satisfaction. Secondly, to keep the questionnaire in a reasonable length so that respondents will not get bored.

The questionnaire was then pre-tested with 10 parents/caregivers visiting the department, to identify any difficulties encountered in answering the questions and to ensure its clarity.

The final version of the questionnaire included information on respondents' sex, age, nationality, marital status, religion, income per month, educational level and number of treatment sessions received. In addition, it included 25 statements describing the characteristics of services received using 5-point Likert scale (1= strongly agree, 2 = Agree, 3 = Neutral, 4 = Disagree, 5 = strongly disagree).

Data Collection

Approval for distributing the questionnaires was taken from the head of the physiotherapy department of AWH. A random sample of Parents/caregivers of the children with different disabilities was chosen.

100 parents/caregivers were randomly asked to fill up the questionnaire. 80 questionnaires were collected and some had missing values. The final sample consisted of 57 respondents.

Respondents were eligible for inclusion if they are able to read and understand either English or Arabic and their children have received any service in physiotherapy department. The following parents/caregivers were excluded: (1) parents/caregivers under 18 years of age, (2) parents/caregivers who had a cognitive inability to respond to the survey (even when the questions of the questionnaire was read to them), (3) parents/caregivers whose child is being seen for initial evaluation on the day of data collection. Subjects were assured that their responses would be kept confidential and they were requested to return the completed questionnaire to the researcher. Data collection was anonymous – subjects were told not to identify their names or health card numbers and the name of their therapist. This study followed systematic random sampling technique when the questionnaires were distributed. The researcher gave the questionnaire to every 5th parent/caregiver coming to the department from 7:30am to 3:00 pm for 7 days.

Data Analysis

Data were coded, scored and logged into spreadsheets in the Statistical Package for Social Sciences (SPSS: Version 15.0). Descriptive statistics were used to calculate the frequencies for all parameters (subjects' characteristics and questionnaire statements). Cross tabulations and Chi squares were calculated to correlate two variables and to see if there are significant values. A *p* value < 0.05 was considered significant.

III. RESULTS:

Subjects demographic characteristics results

Subjects' characteristics showed that more than half were female (71.9%, *n* = 41), Majority of the respondents were from the age group 25 – 31 (42.1%, *n* = 24), local (64.9%, *n* = 37), married (94.7 %, *n* = 54), Muslims (93%, *n* = 53), their income per month is less than 10,000 Dhs. (52.6%, *n* = 30), have high school degree (47.4%, *n* = 27), and their children received 1 – 10 sessions of physiotherapy treatment (56.1%, *n* =

32). Comparison between maximum and minimum values of each demographic characteristic is presented in Table 1.

Demographic & Characteristics	Functional	Maximum value Minimum value	(n, %)
Sex		Female	(41, 71.9 %)
		Male	(16, 28.1%)
Age		25-31	(24, 42.1 %)
		46 and above	(2, 3.5%)
Nationality		Local	(37, 64.9%)
		other	(3, 5.3%)
Marital Status		Married	(54, 94.7%)
		Bachelor	(3, 5.3 %)
Religion		Muslim	(53, 93.0%)
		others	(1, 1.8%)
Income per month		Less than 10,000Dhs.	(30, 52.6%)
		33,000 - 43,000Dhs.	(2, 3.5%)
Educational Level		high school	(27, 47.4%)
		Bachelor	(2, 3.5%)
Number of treatment sessions received		1-10 sessions	(32, 56.1%)
		21-30 sessions	(4, 7.0%)

Table 1: demographic characteristics of parents/caregivers of the children with disabilities
Parents/caregivers satisfaction with physiotherapy services results

<i>Response</i>	<i>Aspect</i>	<i>(n, %)</i>
Highly satisfied	Physiotherapy department	(35.3, 62%)
Highly satisfied	Reception	(37, 64.9%)
Highly satisfied	Therapists use the time scheduled for the session efficiently	(32, 56.1%)
Highly satisfied	Referral to physiotherapy easily	(22, 38.6%)

Neutral	Financial aspects	(28, 49.15)
Neutral	Availability of therapists for further consultation	(24, 42.1%)
Neutral	Improvement of treatment sessions	(19, 33.3%)
Highly dissatisfied	Therapists are treating them/their child very quickly	(23, 40.4%)

Table 2: mean of number of subjects and their percentages on each aspect of the questionnaire

As in table 2, the results show that parents/caregivers are highly satisfied with the physiotherapy department aspect, reception, efficient use of time while treating their children, ease referral to physiotherapy and communication with the therapists. Additionally, they were uncertain about financial aspect, availability of therapists for further consultation, improvement of treatment sessions although 29.8% were agreeing to improve the sessions. In addition, 23 of the parents/caregivers (40.4%) were highly dissatisfied because therapists are treating their children very quickly.

To test the hypothesis:

Ho: $P < 0.5$

H1: $P \geq 0.5$ (claim)

$$\hat{P} = \frac{54}{57} = 0.94 \text{ (94\% satisfied)}$$

$$\sigma_{\hat{p}} = \sqrt{0.5 \frac{(1-0.5)}{57}} = 0.066$$

$$Z = \frac{\hat{p} - p}{\sigma_{\hat{p}}} = \frac{0.94 - 0.5}{0.066} = 6.67$$

$\alpha = 0.05$

From the normal table $Z_{\alpha} = -1.645$

$z > z_{\alpha}$, so not reject Ho.

Generally, there is enough evidence to support the claim that 94% of the parents/caregivers were satisfied with the physiotherapy department at 5% level of significance.

There were no significant values while calculated using cross tabulations and Chi squares. Tables provided in appendix B

IV. DISCUSSION

This part will discuss the findings from parents/caregivers whose children received physiotherapy services at physiotherapy department of AWH in Dubai, using a questionnaire derived from the literature. This discussion aims to support the hypothesis.

Subjects' characteristics interpretation:

More than half were women (71.9%, $n = 41/57$): this indicates that men are usually at work in the morning and the responsibility lies on women. Majority of the parents attending physiotherapy department were local (64.9%, $n = 37/57$): this maybe because Al Wasl Hospital is a government hospital and offering a free services to all local patients, including physiotherapy department. Another reason could be because in UAE we have high number of marriage from the 1st cousin degree, which is not recommended because it leads to get children with genetic disorders.

Overall satisfaction with physiotherapy services

The highly satisfaction of the parents/caregivers of physiotherapy services and their uncertainty of the financial aspects is supported with these two studies. (Sarah N, Martin, Fionnuala and Susan, 2008) conducted a study to measure patient satisfaction with private physiotherapy treatment for musculoskeletal pain in Ireland for the first time using a validated physiotherapy-specific patient satisfaction questionnaire. Results showed high levels of satisfaction with all components of physiotherapy treatment, except cost of the treatment sessions.

Satisfaction with time spent with the therapist

Furthermore, (23, 40.4%) of the parents/caregivers were dissatisfied about the time spent with their children, they noted that therapists are treating their children very quickly. This maybe because patient's

condition doesn't require long treatment time. Another reason is that the physiotherapists may have heavy work load. (IROCHU-OMARE MARGARET HELEN, 2004) conducted a study on parents/caregivers satisfaction of children with cerebral palsy (CP) who received physiotherapy services from the CP clinic at Mulago Hospital. The results showed that they were satisfied with the outcome of the services and interpersonal relationship with the physiotherapist. However, some parents/caregivers were concerned with some aspects of care, like information on diagnosis and prognosis, time spent with the patient, the teaching, communication and involvement of parent/caregiver in decision making(2).

Communication with the therapist

Klaber Moffett and Richardson (1997) stated that the quality of communication and patient education form an essential basis for success in outcome. Yet, according to Hough (1987) communication is considered as the backbone of psychological care. Previous researches on psychological issues related to pediatric practice, showed that parents/caregivers have a great desire for knowledge about psychological issues. Other than for provision of knowledge and skills, communication during medical visits has been linked to important outcomes such as satisfaction, functional status and patient adherence as described by Lewis, Pantell & Lee Sharp (1991).

(Levit and Goldschmied, 1990) explained that by paying attention to what parents/caregivers are saying about their children's everyday routines of feeding, dressing, washing, toileting, playing mobility, it would help them to clarify their expectations or wants and to work better with their children to achieve the desired goals and outcomes. This supports my findings that (n=27, 47.4%) of the parents/caregivers were highly satisfied about the therapists because they are paying attention to what they are saying or discussing with them.

Satisfaction on access and availability area

In this research, 25/57 of the parents/caregivers (43.9%) reported that they are not waiting for a long time before the session starts, which increases their level of satisfaction at physiotherapy department of AWH. The interpretation of this finding is because the department put a rule for patients' attendance. For example, a patient has an appointment 0830 hrs. he should register in the reception no more than 10 minutes before the session start, then enters the treatment room at his exact appointment time, and the session will run for one hour then the next patient will enter. This finding contradicts the findings of the following researchers. According to El Shabrawy and Mahmoud (1993) long waiting times influenced the level of patient satisfaction negatively. That was why (Siu-chee et al. (2003) reported that in Hong Kong the most frequently cited reason for parents leaving the Family Health Service (FHS) was lengthy waiting time.

V. CONCLUSION:

The data collected in this research will provide information to physiotherapy department of AWH to improve the quality of their services, and therefore parents/caregivers satisfaction. 94 % of the parents/caregivers of children with disabilities who received physiotherapy services at physiotherapy department of AWH were satisfied with the physiotherapy department services. Their satisfaction includes physiotherapy department aspect, reception, efficient use of the time while treating their children, ease referral to physiotherapy and communication with the therapists. Additionally, they were uncertain about financial aspect, availability of therapists for further consultation, improvement of treatment sessions although 29.8% were agreeing that there is need to improve the sessions. Also, 23 of the parents/caregivers (40.4%) were highly dissatisfied because therapists are treating their children very quickly. Previous mentioned studies confirmed these findings.

VI. RECOMMENDATIONS:

From the results, we concluded that most of the parents/caregivers coming to the physiotherapy department are locals (64.9%, n = 37/57). This is because all physiotherapy services offered free for locals and a charge for non-local. Also, as found in the results of the financial aspect, n=28/57, 49.15% of the parents have lack of awareness in this aspect which means either they are local or the cost is high for non-local parents. Therefore, we recommend for physiotherapy department's management to reduce physiotherapy costs for those whose income is less than 10,000 Dhs. (n = 30, 52.6%).

Regarding improving the treatment sessions. 33.3% of the parents were not sure if the sessions need improvement or not, although 29.8% were agreeing to improve the sessions. For this point we suggest conducting pediatric physiotherapy courses and workshops and train the physiotherapists in the latest physiotherapy assessment and treatment techniques.

42.1% of the parents/caregivers were unsure of the timetable of the physiotherapists for consultation. It will be better if the manager to set a timetable for each physiotherapist for further consultation.

Increase the number of physiotherapists to give a chance for parents/caregivers to get more frequent appointments and can be seen frequently and instead of being treated once a month they can be treated three to four times a month to improve the condition of children.

New patients should be provided with sufficient information regarding their children's condition, such as causes, symptoms and prognosis of their diseases. The information should be clear, easy, and specific and must be given in small doses to aid as well as to avoid overload. It will be better if they can use drawings or diagrams, charts, booklets or handouts to help in explaining some complex information. In addition, they should work together while establishing the goals and treatment plans.

Regarding home programs, teaching should include a demonstration of each exercise, followed by the parent/caregiver trying it out with the physiotherapist's guidance. Furthermore, the parent/caregiver needs a clear explanation of the purpose of each exercise, which needs to be written down in a piece of paper and illustrate to them in order to improve the level of adherence. Depending on the complexity of the skill/exercise, the complete exercise can be broken down into logical segments, which parents can practice in parts. Finally, the parent/caregiver needs to be given a feedback of how well they have performed and what needs to be improved.

Future studies:

For future studies on this topic, we recommend having a bigger sample size to include pediatrics' patients from all UAE hospitals and clinics to be able to generalize the results.

Future research should specify the type of disability such as surveying cerebral palsy patients only or Down's syndrome patients only so that the results will be more precise and accurate.

Provide the questionnaire with open-ended questions would help parents feel free in providing either complaints or suggestions for the department.

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APPENDIX A

Dear patient / patient’s relative,

We are writing this research paper on measuring *patient satisfaction of physiotherapy department at Al Wasl Hospital*. The information you offer will be highly confidential and it will be used for the purpose of research only.

Researchers:

Please choose the appropriate answer:

Sex	<input type="checkbox"/> Male	<input type="checkbox"/> Female				
Age	<input type="checkbox"/> 18 - 24	<input type="checkbox"/> 25 - 31	<input type="checkbox"/> 32-38	<input type="checkbox"/> 39 - 45	<input type="checkbox"/> 46 and above	
Nationality	<input type="checkbox"/> Local	<input type="checkbox"/> Arab	<input type="checkbox"/> Asian	<input type="checkbox"/> European	<input type="checkbox"/> American	<input type="checkbox"/> other
Marital status	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Married	<input type="checkbox"/> Widowed	<input type="checkbox"/> Divorced		
Religion	<input type="checkbox"/> Moslem	<input type="checkbox"/> Christian	<input type="checkbox"/> Jew	<input type="checkbox"/> Buddhist	others	
Income per month in Dirham’s	<input type="checkbox"/> Less than 10,000 Dhs.	<input type="checkbox"/> 11,000-21,000 Dhs.	<input type="checkbox"/> 22,000-32,000 Dhs.	<input type="checkbox"/> 33,000-43,000 Dhs.	<input type="checkbox"/> More than 44,000 Dhs.	
Educational Level	<input type="checkbox"/> High School	<input type="checkbox"/> Diploma	<input type="checkbox"/> Bachelor	<input type="checkbox"/> Masters	Ph.D.	
Number of treatment sessions received	<input type="checkbox"/> 1 – 10 sessions	<input type="checkbox"/> 11 – 20 sessions	<input type="checkbox"/> 21 – 30 sessions	<input type="checkbox"/> 31 sessions and above		

No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
A	Parking area					
1	There is enough parking	1	2	3	4	5
2	I park my car near the hospital entrance	1	2	3	4	5
3	The parking size is suitable for my vehicle	1	2	3	4	5
No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
B	Physiotherapy department					
4	The physiotherapy department is clean	1	2	3	4	5
5	The physiotherapy department has a nice smell	1	2	3	4	5
6	The physiotherapy department has enough chairs in the waiting area	1	2	3	4	5

C		Reception				
7	The receptionists are available always during the working hours	1	2	3	4	5
8	The receptionist treats me in a good manner	1	2	3	4	5
9	The receptionist is respectful	1	2	3	4	5
10	The receptionist is cooperative	1	2	3	4	5
11	The receptionist doesn't discriminate against people	1	2	3	4	5
12	The receptionist informs me immediately in case of postponing or canceling the appointment	1	2	3	4	5
13	I find it hard to get an appointment for the next treatment session right away	1	2	3	4	5
D		Financial Aspects				
14	Physiotherapy department bills are reasonable	1	2	3	4	5
15	The cost of home equipments that my child needs is expensive	1	2	3	4	5
E		Communication with the therapists				
16	Sometimes therapists use medical terms without explaining the meaning	1	2	3	4	5
17	Some of the languages are not clear & difficult to understand	1	2	3	4	5
18	The therapists are paying attention to what I'm saying	1	2	3	4	5
F		Time Spent with the therapists				
19	The therapists use the time scheduled for the session efficiently	1	2	3	4	5
20	The therapists are treating me/my child very quickly	1	2	3	4	5
G		Access / Availability / Convenience				
21	I can get the referral for physiotherapy department easily, if I need it.	1	2	3	4	5
22	I usually keep waiting for a long time before the session starts	1	2	3	4	5
23	The therapists are available in certain times for further consultation	1	2	3	4	5
H		General Satisfaction				
24	I am satisfied with physiotherapy department services	1	2	3	4	5
25	The treatment sessions need improvement	1	2	3	4	5

Suggestions / recommendations >>

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Thank you for your corporation