

Exploration of Parental Satisfaction with Physical Therapy Services in Pediatrics Out-Patient Clinics

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ABSTRACT

Background: One of the means to assess health related quality of care can be through detecting patient satisfaction. On the other hand, clinicians can more accurately plan for offered physical therapy service when evaluating patient satisfaction. **Objective:** This study aimed to explore the parents/caregivers of spastic cerebral palsy children satisfaction with the physiotherapy services delivered in the pediatric out-patient clinic of Faculty of Physical Therapy, Cairo University and how it is impacting their children's quality of life.

Subjects and Methods: The study sample included 100 parents of spastic cerebral palsy children aged from 2 to 7 years. Parents' satisfaction was evaluated using the MedRisk Instrument (MRPS) and their children's health related quality of life was measured by pediatric quality of life (PedsQL).

Results: The results revealed that the overall satisfaction level was very good according to MRPS and there was weak positive non-significant correlation between MARS and PedsQL. **Conclusion:** Parent satisfaction with physical therapy services in pediatric outpatient clinics at the Faculty of Physical Therapy, Cairo University was very good although there was non-significant correlation between parent satisfaction and their children's health related quality of life.

Keywords: Patient satisfaction, MedRisk patient satisfaction instrument, Physical therapy services, Health related quality of life, Pediatric quality of life.

INTRODUCTION

The effectiveness of the rehabilitation process is largely attributed to the patients' pleasure, which is measured by the calibre of medical services. It offers unbiased comments on the services, encourages patients, and helps them stick with the treatment plan. Additionally, it improves quality of life by gathering statistics and information that health authorities use to make financing decisions and to accredit medical clinics⁽¹⁾. Patient perception of the calibre of the services they received is reflected in their level of satisfaction. It serves as a gauge of the standard of care provided by the healthcare system⁽²⁾. The connection between the therapist and the patient, the external environment, and societal values all play a significant role in this broad issue⁽³⁾. When evaluating the calibre and output of a specific healthcare service, patients' pleasure is thought to be a crucial factor⁽⁴⁾. It has been discovered that patients who report higher satisfaction rates also show better health. One way to get data regarding the perceived quality of care is through patient feedback on healthcare services⁽⁵⁾.

According to several studies, satisfied people are more loyal to their healthcare providers and follow their advice and recommendations than dissatisfied patients⁽⁶⁾. This is because the physiotherapist develops a trusting relationship with the patient because rehabilitation takes a long time. As a result, they assist patients and allay their anxieties, which encourages patients to work hard throughout treatment and see improvements⁽⁷⁾. Numerous studies that included patients with various pathologies discovered that the therapeutic relationship between the patient and the therapist has an advantageous effect on the course of treatment, the patient's ability to perform daily tasks,

physical functional tasks, pain management, completion of the treatment plan, and treatment satisfaction⁽⁸⁾.

In physiotherapy field, therapist-patient interaction is more powerful compared to other medical professions. This is mainly related to the environment of the physiotherapy treatment and the extensive encounter between patient and therapist and consequently the patient's perception of this relation can be directly influenced^(9,10).

The primary movement and postural problems associated with cerebral palsy (CP) are caused by non-progressive brain injury that occurs in infancy; typically linked to emotional, social, and familial challenges as well as disability⁽¹¹⁾.

The past decade has evidenced a dramatic increase in the development and use of pediatric health-related quality of life (HRQOL) measures in an effort to improve pediatric patient health and determine the value of health care services^(12,13). HRQOL is a multidimensional construct, consisting at the minimum of the physical, psychological (including emotional and cognitive), and social health dimensions delineated by the World Health Organization⁽¹⁴⁾. A number of authors have argued that improving quality of life is the ultimate goal of health care⁽¹⁵⁾.

This study aimed to explore the parents/caregivers of spastic cerebral palsy children satisfaction with the physiotherapy services delivered in the pediatric out-patient clinic of Faculty of Physical Therapy, Cairo University and how it is impacting their children's quality of life.

SUBJECTS AND METHODS

One hundred parents of spastic cerebral palsy (hemiplegia, paraplegia, diplegia and quadriplegia)

children that their ages ranged from 2 to 7 years old. Inclusion criteria included only the parents/caregivers of children with clinical diagnosis of spastic cerebral palsy who were receiving physiotherapy services at the pediatric out-patient clinic of Faculty of Physical Therapy, Cairo University for a minimum of six months regularly.

Materials of evaluation

A. MedRisk instrument for measuring patient satisfaction:

Parent satisfaction was evaluated by a valid and reliable instrument called MedRisk instrument that was translated from English to Arabic and printed to be given to the parents of spastic cerebral palsy children aged from (2 to 7 years). This instrument has been claimed to present the advantage of being effective and easy to grade, with high level of reliability and validity⁽¹⁶⁾. After filling out the survey, each participant was asked to place it in a previously given sealed envelope. Patients' names were coded to guarantee anonymity.

All parents completed the MRPS and a 9-point global measure of change after at least six months or more treatment visits.

Each item of the MRPS is rated on a 5-point Likert scale, in which 1 is "strongly disagree" and 5 is "strongly agree". A "not applicable" option was also available for each item (in this case, it was scored as zero). To control for response bias, positive and negative sentence items were included. To reduce the possibility of a subject scoring all items equally, items 4, 6, 8, and 13 were intentionally negatively worded, but were recoded as positive in final scoring (i.e., responses of 1 = 5, 2 = 4, 4 = 2, and 5 = 1). The total score of the 20-item pilot version ranges from 20 to 100 points.

Higher scores represent higher satisfaction. This instrument also records demographic characteristics of the participants, such as age, gender, and condition treated and the (MARS) contains global rating of change.

Global Rating of Change

The global rating of change scale compares the patient's current state to the patient's state at the beginning of physical therapy treatment. It is a 9-point Likert scale ranging from 1 ("very much better") to 9 ("very much worse"), where lower scores represent patients who are recovering, and higher scores represent those whose condition has worsened.

B- Pediatric quality of life inventory 3.0 CP MODULE:

Health related quality of life is measured by pediatric quality of life questionnaire that is specific for cerebral palsy children. We used Arabic version that is translated from Mapi research, parent proxy report from ages (2-4 years, Young child) and ages (5-7 years, Toddlers) that is applied to the same parents that answered MedRisk instrument for parent satisfaction.

The 22-item PedsQL 3.0 CP Module (2-4 years) encompasses five scales:

- (1) Daily activities (5 items)
- (2) Movement and Balance (5 items)
- (3) Pain and Hurt (4 items)
- (4) Fatigue (4 items)
- (5) Eating Activities (5 items).

The 35-item PedsQL 3.0 CP Module (5-7 years) encompasses seven scales:

- (1) Daily Activities (9 items)
- (2) School Activities (4 items)
- (3) Movement and Balance (5 items)
- (4) Pain and Hurt (4 items)
- (5) Fatigue (4 items)
- (6) Eating Activities (5 items)
- (7) Speech and Communication (4 items).

A 5-point response scale is utilized across child parent proxy report (0=never a problem; 1=almost never a problem; 2=sometimes a problem; 3=often a problem; 4=almost always a problem). Items are reverse scored and linearly transformed to a 0–100 scale (0=100, 1=75, 2=50, 3=25, 4=0), so that higher scores indicate better HRQOL. Scale Scores are computed as the sum of the items divided by the number of items answered (this accounts for missing data). If more than 50% of the items in the scale are missing, the Scale Score is not computed.

Ethical consent:

An approval of the study was obtained from Cairo University Academic and Ethical Committee. Every patient signed an informed written consent for acceptance of participation in the study. This work has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for studies involving humans.

Statistical analysis

All statistical analyses were performed through the Statistical Package for the Social Sciences (SPSS) version 25 for windows. (IBM SPSS, Chicago, IL, USA). Descriptive statistics were conducted to summarize the collected data. Quantitative variables were summarized using mean and standard deviation while categorical variables were summarized using frequencies and percentage. Spearman correlation coefficient was conducted to determine the correlation between MRPS and PedsQL. The level of significance for all statistical tests was set at $p < 0.05$.

RESULTS

General characteristics of the subjects:

Age, sex and diagnosis are shown in table 1.

Table (1): Descriptive statistics of age, sex and diagnosis of children with cerebral palsy

	$\bar{X} \pm SD$	Minimum	Maximum	Range
Age (years)	5 ± 1.58	2	7	5
Sex distribution				
Females	50 (50%)			
Males	50 (50%)			
Diagnosis				
Hemiplegia	29 (29%)			
Diplegia	24 (24%)			
Paraplegia	6 (6%)			
Quadriplegia	41 (41%)			

The MedRisk instrument for measuring parent satisfaction with physical therapy care:

The mean value ± SD parent satisfaction was 74.85 ± 6.86; that means that the parent satisfaction was very good. The highest mean was for statement 10 “My therapist treated me respectfully” followed by the mean for statement 16 “The office and its facilities were clean”, and for statement 2 “The registration process was appropriate”. The lowest mean was for statement 5 “This office provided convenient parking”, followed by the mean for statement 6 “I waited too long to see my therapist” (Table 2).

Table (2): Parent satisfaction with physical therapy care

	Parent satisfaction	$\bar{X} \pm SD$
Q1	The office receptionist was courteous	3.93 ± 0.97
Q2	The registration process was appropriate	4.41 ± 0.65
Q3	The waiting area was comfortable (lighting, temperature, furnishings)	4.25 ± 0.79
Q4	The office location was not convenient	3.8 ± 0.84
Q5	This office provided convenient parking	0.24 ± 0.05
Q6	I waited too long to see my therapist	2.53 ± 0.46
Q7	The office hours were convenient for me	3.88 ± 0.72
Q8	My therapist did not spend enough time with me	4.36 ± 0.71
Q9	My therapist thoroughly explained the treatment(s) I received	4.05 ± 0.81
Q10	My therapist treated me respectfully	4.67 ± 0.49
Q11	The office staff was respectful	4.29 ± 0.89
Q12	The therapist’s assistant/aide was respectful	-
Q13	My therapist did not listen to my concerns	4.3 ± 0.59
Q14	My therapist answered all my questions	4.27 ± 0.69
Q15	My therapist advised me on ways to avoid future problems	3.88 ± 0.9
Q16	The office and its facilities were clean	4.5 ± 0.64
Q17	The office used up-to-date equipment	3.93 ± 0.59
Q18	My therapist gave me detailed instructions regarding my home program	3.99 ± 0.85
Q19	Overall, I am completely satisfied with the services I received from my therapist	4.34 ± 0.61
Q20	I would return to this office for future services or care	4.31 ± 0.64
	Total score	74.85±6.86

Regarding the questions: How does the current condition compared to how it was before you started physical therapy treatment? 45% of subjects reported much better (Table 3).

Table (3): How does your current condition compared to how it was before you started physical therapy treatment?

How does your current condition compared to how it was before you started physical therapy treatment?		N (%)
Very much better		24 (24%)
Much better		45 (45%)
Somewhat better		31 (31%)

Correlation between MRPS and PedsQL in children 2-4 years:

The correlation between MRPS and PedsQL in children 2-4 years was weak positive non- significant correlation ($r = 0.154$, $p = 0.364$) (Figure 1).

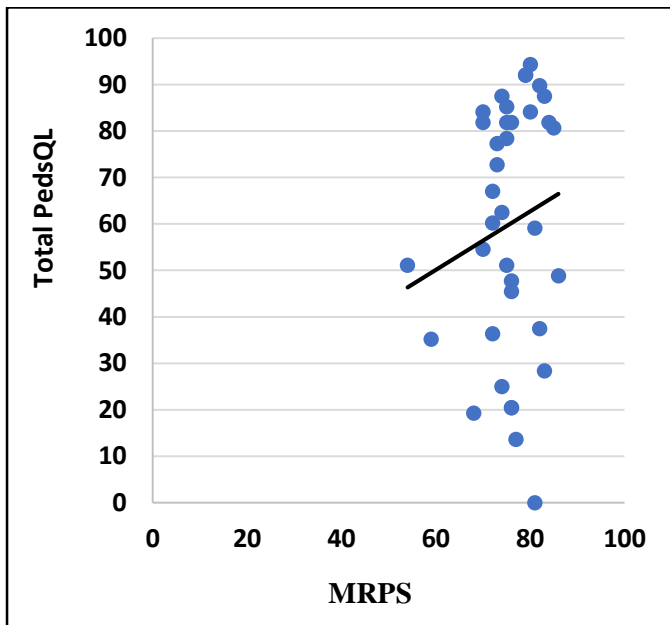


Figure (1): Correlation between MRPS and total PedsQL in children 2-4 years

The correlation between MRPS and PedsQL in children 5-7 years was weak positive non-significant correlation ($r = 0.228$, $p = 0.072$) (Figure 2).

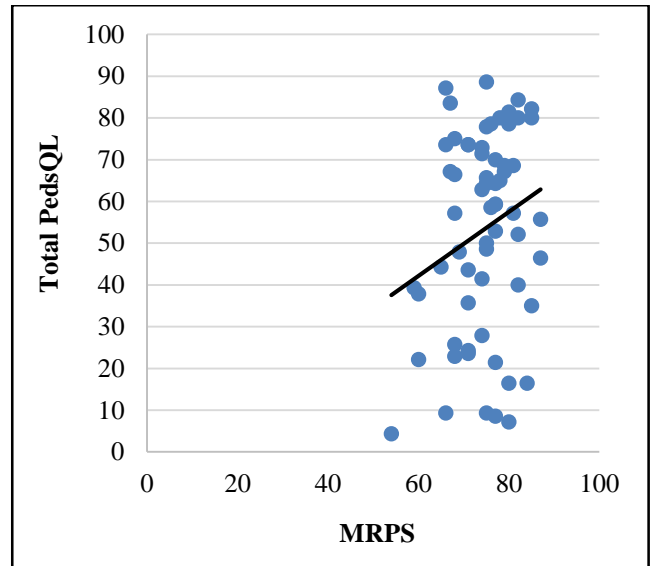


Figure (2): Correlation between MRPS and total PedsQL in children 5-7 years

DISCUSSION

The purpose of this study was to investigate parental satisfaction with physical therapy services and how it is impacting their children’s quality of life in pediatrics out-patient clinics in the Faculty of Physical Therapy, Cairo University, Egypt. One hundred parents of children with cerebral palsy participated in this study. Parents satisfaction were evaluated by (MARS) and their children health related quality of life were evaluated by (PedsQL).

The current results showed that the mean value \pm SD of parent satisfaction was 74.85 ± 6.86 , which reflected that the parent satisfaction was very good. There was nonsignificant correlation between (MARS) and (PedsQL) in the two age groups.

In (MARS) the higher the score was the greater is the satisfaction of the user with the service, with the highest possible value being equal to 5 ⁽¹⁷⁾. Most of obtained items averaged four and above 4 on a 1 to 5 scale (best answer).

The current result regarding the highest score in the (MARS) was for statement 10 “My therapist treated me respectfully” and the item with lowest score was for statement 6 “I waited too long to see my therapist” This comes in agreement with Machado⁽¹⁸⁾ who stated that, the item with highest score was in reference to physical therapist/patient respect. In contrast, item with the lowest score dealt with they wait too long to see the therapist due to university clinics tend to have high resident turnover rates.

Bleustein *et al.*⁽¹⁹⁾ in their study showed that scores for patient satisfaction was negatively correlated to waiting time. Similarly, Kreitz *et al.*⁽²⁰⁾ reported that as waiting time increases, patient satisfaction decreases. Though Anderson *et al.*⁽²¹⁾ also showed that longer waiting time affected patient satisfaction negatively, the strongest predictor was the time spent with the physician rather than waiting time. The qualitative findings of this study also showed despite patients

voicing out the long waiting time, they were satisfied with proper consultation, patient's trust in the doctor was the strongest predictor of patient satisfaction followed by waiting time. And this agrees with our study because statement 8 "My therapist did not spend enough time with me" has a high score.

It was observed that the lower satisfaction is usually related to the physical environment⁽¹⁷⁻²²⁾, but in the current study the statement 16 "The office and its facilities were clean" and statement 3 "The waiting area was comfortable (lighting, temperature, furnishings)" had high scores above 4 on a 1 to 5 scale. This provides an important direction when achieving excellence in patient-centered care, since the physical environment emerges as an active and participatory means of caring, developing positive emotional states in relation to treatment expectations. The environment transmits, in the form of small signs, the care policy offered by the institution⁽²³⁾.

Patient satisfaction is also influenced by nonclinical factors⁽²⁴⁾. In the current study items with low score (below 4 on a 1 to 5 scale) are statement 5 "This office provided convenient parking", statement 4 "The office location was not convenient", statement 7 "The office hours were convenient for me" and statement 5 "I waited too long to see my therapist" and this comes in agreement with **Hills and Kitchen**⁽²⁵⁾ who stated that, multiple studies have found that patients are more satisfied if the physiotherapy service is easy to access (location, parking, and clinic hours), involves helpful administrative staff, and is associated with lower waiting times, and the premises are of a high standard.

In the current study the items with high satisfaction are related to the therapist-patient interaction and this is supported by **Hush et al.**⁽²²⁾ who reported that the items with the highest satisfaction are related to the therapist-patient interaction and the respect involved in it. And these items showed greater correlation with overall satisfaction and also **Hingarajia**⁽²⁶⁾ stated that patient's satisfaction is directly related to patient-therapist interaction. Thus, factors such as: clear explanations about treatment, and therapists who demonstrate well-developed communication skills, would be more important for patient satisfaction than the location of the clinic, or quality of available equipment.

Regarding the questions: How does your current condition compare to how it was before you started physical therapy treatment? 45% of subjects reported much better, 31% somewhat better and 24% reported very much better. And this agrees with **Hush et al.**⁽²²⁾ who stated that most participants of their study reported feeling "much better" after starting treatment.

The current study also showed that there was nonsignificant correlation between parent satisfaction and their children's health related quality of life. This was supported by **Hall et al.**⁽²⁷⁾ who stated that no effect of satisfaction on health status and **Kane et al.**⁽²⁸⁾ who

reported that, other studies on the association between health status and patient satisfaction could not evaluate the effect of satisfaction on health status, because they measured health status either before or at the same time when measuring satisfaction.

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Author contribution: Authors contributed equally in the study.

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