



Patients' Satisfaction with Physical Therapy Services in Burn Departments

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ABSTRACT

Background: An important patient-centered health outcome is patient satisfaction. By comprehending and maximizing the aspects affecting patient satisfaction, physical therapists can boost the standard of patient-centered therapy. Evidence showing satisfied patients are more likely to adhere to treatment, benefit from their medical care, and have a higher quality of life emphasizes the importance of patient satisfaction even more. **Aim of the study:** The current study's objective is to trace and assess to what extent the cases having physical therapy in burn units were satisfied or not. The major framework of the current academic study to shed light on the aspect of patient satisfaction. **Material and Methods:** One hundred ninety-five male and female burn cases over the age of 15 were selected from Beni Suef general hospitals' outpatient clinics. Adopting the MedRisk patient satisfaction instrument, patient satisfaction was gauged carefully (MRPS). **Results:** The key aspect of the outcomes is that the Overall satisfaction level was very good (4.05) according to MRPS. **Conclusion:** Cases obtaining physical therapy in burn departments at Beni Seuf's general hospital were highly satisfied with the service.

Keywords: Patient satisfaction, MedRisk patient satisfaction Instrument, physical therapy services, burn departments

INTRODUCTION:

Aim

Patient satisfaction (PS), which represents patients' experiences, is a crucial indicator of the effectiveness and quality of healthcare systems. (Devreux et al., 2012). The extent to which patients feel their expectations have been met can likewise be used to communicate satisfaction (Rosemary and Sheila, 2007).

The importance of patient satisfaction research in connection to healthcare quality is becoming more widely recognized. According to research, contented patients are more likely to take advantage of their medical treatment, keep their appointments, and adhere to prescribed treatment plans. The patient must take part in the majority of healthcare activities in some form. (Rosemary and Sheila, 2007).

The performance of the health system is increasingly gauged by customer satisfaction with service delivery. Distribution, accessibility, and use of medical services are indicators of satisfaction. (Kumari et al., 2009). In physical rehabilitation settings, patient and therapist satisfaction appears to have a favorable impact on the course of treatment. (Hall et al., 2016).

An essential factor in evaluating the effectiveness of physical therapy practice is patient satisfaction with care. Patient satisfaction surveys have been used as quality-of-care indicators, a screening tool for patients who are more or less likely to comply with treatment plans, and a yardstick for gauging market competitiveness. (Beattie et al., 2005).

Healthcare user satisfaction is multidisciplinary in nature, meaning that a person may be happy with some parts of a service or consultation while concurrently being unhappy with other service dimensions. Through characteristics including the environment's structure, the service-delivery method (care), and the results attained with the therapy, the degree of satisfaction reached indicates a range of criteria that go beyond the purely clinical scope (Guimares et al., 2017).

According to several studies, the therapist-patient relationship positively correlates with treatment outcomes in rehabilitation programs, including patients' capacity to complete everyday duties and be satisfied with their care. (Hall et al., 2016). Subsequently, the current academic work's major focus objective was to trace how satisfied patients were with the physical treatment offered in burn units.

MATERIALS AND METHODS:

Study Design: A cross-sectional survey was adopted for the study's design in order to gauge how satisfied patients were with the physical therapy offered in burn units.

Subjects:

Study population:

Based on the assumptions of a 95% confidence level, a 5% margin of error, and a proportion of 71% patient satisfaction, the sample size was calculated using the method for a single population proportion. (Algudairi et al. 2018). 195 people are needed as a sample size.

Where,

$$n = \frac{NZ^2 P(1-P)}{d^2 (N-1) + Z^2 P(1-P)}$$

n= sample size with finite patient correction

N= population size

Z = Z statistic for a level of confidence

P = expected or proportion

d = margin of error

From Beni Suef general hospitals' outpatient clinics, a sample of 125 post-burn patients was chosen to answer the current academic work's questions.

- **Inclusion criteria:** Individuals with various degrees of burns, age more than 15, both male and female patients, ability to read and interpret Arabic, attendance for at least three physical therapy sessions, and informed consent were all requirements.
- **Exclusion criteria:** patients with communication difficulties, patients with hearing, vision, or cognitive impairment, Patients taking medicine for psychiatric problems, and irregular attendance at physical therapy appointments.

METHODS

As a technique for evaluation, the MedRisk Instrument for Measuring Patient Satisfaction with Physical Therapy Care (MRPS) was employed. It was created primarily to gauge satisfaction with physical therapy services in the English language in the United States. (Beattie et al., 2002). For US citizens who do not understand English, it was validated in Spanish, and the results demonstrated that it was reliable and valid in that language as well as in English. (Beattie et al., 2007).

The MedRisk questionnaire has advantages that other instruments that have been

developed for measuring satisfaction to date do not have, including being internationally validated, simple to apply, understand, and interpret, and aiding in the identification of specific items related to the overall perception of patients' satisfaction with physical therapy services. (Beattie et al., 2005).

According to reports, the MedRisk questionnaire is a viable and trustworthy method for assessing patients' satisfaction with outpatient physical therapy services. (Hills and Kitchen, 2007). As a technique for evaluation, the MedRisk Instrument for Measuring Patient Satisfaction with Physical Therapy Care (MRPS) was employed. It was created primarily to gauge satisfaction with physical therapy services in the English language in the United States. (Beattie et al., 2002). (**Table 1**)

The physical therapy department of King Fahd Research Center, King Abdul-Aziz University, Saudi Arabia, has bilingual staff members who have translated and transcultural altered the Medrisk questionnaire for use with the Arabic-speaking population. (Devreux et al., 2012).

RESULTS:

Subjects' characteristics

One hundred and ninety-five cases engaged in the current academic work have obtained physiotherapy care in burn departments. The mean \pm SD age of cases was 33.16 ± 12.16 years with a minimum of 15 years and a maximum of 65 years. 100 (51.3%) of cases were 15-33 years and 95 (48.7%) of cases were 34-65 years. The mean \pm SD TBSA of cases was $23.68 \pm 10.78\%$ with a minimum

of 9% and a maximum of 65%. 98 (50.3%) of cases were 9-22% TBSA and 97 (49.7%) of subjects had 23-65% TBSA. Sex distribution showed that 59 (30.3%) of cases were females and 136 (69.7%) were males.

The occupation distribution of cases portrayed that there were 100 (51.3%) employees, 17 (8.7%) farmers, 33 (16.9%) housewives, and 45 (23.1%) students as highlighted in (Table 2).

Table 1: English version of the MedRisk instrument to measure patient satisfaction with Physical Therapy care (Beattie et al., 2002).

Please answer the questions below by circling the response which best describes your opinions about your treatment protocol.						
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The receptionist was courteous	1	2	3	4	5
2	The registration process was adequate	1	2	3	4	5
3	The waiting room was comfortable (lighting, temperature, furniture)	1	2	3	4	5
4	The opening hours of this clinic were convenient for me	1	2	3	4	5
5	My physiotherapist explained to me carefully the treatments I received	1	2	3	4	5
6	My physiotherapist treated me respectfully	1	2	3	4	5
7	The clinic employees were respectful	1	2	3	4	5
8	My physiotherapist answered all my questions	1	2	3	4	5
9	My physiotherapist advised me on ways to avoid future problems	1	2	3	4	5
10	The clinic and its facilities were clean	1	2	3	4	5
11	My physiotherapist provided me with detailed instructions on my home exercise program	1	2	3	4	5
12	In general, I am completely satisfied with the services I received from my physiotherapist	1	2	3	4	5
13	I would return to this clinic for future services or treatment	1	2	3	4	5

Table 2. Participants' characteristics

	Mean	SD
Age (years)	33.16	12.16
TBSA (%)	23.68	10.78
	N	%
Age classes, n (%)		
15 to 33 years	100	51.3
34 to 65 years	95	48.7
TBSA, n (%)		
9 to 22%	98	50.3
23 to 65%	97	49.7
Sex distribution, n (%)		
Females	59	30.3
Males	136	69.7
Occupation, n (%)		
Employee	100	51.3
Farmer	17	8.7
Housewife	33	16.9
Student	45	23.1

SD: Standard deviation

- Patient satisfaction with physical therapy care:

The mean value \pm SD of patient satisfaction was gauged with the Medrisk instrument for measuring patient satisfaction with physical therapy care was 4.05 ± 0.88 which represents satisfaction about 81% which means patient satisfaction with physical therapy care was very good.

Interpersonal domain: Patient satisfaction in the interpersonal domain was 3.72 ± 0.97 on average, with standard deviation encompassed. Statement 6 "My physical therapist treated me respectfully" had the highest mean, 4.43 ± 0.81 , while statement 7 "The staff at the clinic were respectful" had the second-highest mean, 4.18 ± 0.79 .

Statement 10 "The clinic and its dependencies were clean" had the lowest mean (3.06 ± 1.15), and statement 3 "The waiting room was comfortable with lighting, temperature, furniture" had the highest mean 3.11 ± 1.14 .

Convenience and Efficiency domain:

Patient satisfaction with efficiency and convenience had a mean score of 4.17 ± 0.82 . The mean for statement 5 "My physical therapist carefully explained the treatments I received" came in second with a mean of 4.24 ± 0.76 , while statement 8 "My physical therapist answered all my questions" had the highest mean of 4.34 ± 0.89 . Statement 4 "The opening hours of

this clinic were convenient for me” had the lowest mean value of 3.93 ± 1.03 .

Patient education domain: Patient education had a mean score of 4.3 with a standard deviation of 0.95. Statement 11 “My physical therapist gave me specific instructions about the home exercise program” had the highest mean of 4.33 ± 0.91 , while statement 9 “My physical therapist advised me about ways to prevent future problems” had the second-highest mean of 4.27 ± 1.01 .

Global items: Patient satisfaction with all items was 4.01 ± 0.94 , which is the mean standard deviation. Statement 12 “In general, I’m completely satisfied with the services I received from my physical therapists” had the highest mean, 4.08 ± 0.83 , while statement 13 “I would return to this clinic for future services or treatment” had the second-highest mean, 3.92 ± 1.06 as highlighted in **Tables 3-4**.

Table 3. The Medrisk instrument for measuring patient satisfaction with physical therapy care.

Medrisk instrument	Statement	Mean \pm SD
Q1	The receptionist was polite	3.53 ± 1.33
Q2	The registration process was adequate	3.97 ± 1.02
Q3	The waiting room was comfortable (lighting, temperature, furniture).	3.11 ± 1.14
Q4	The opening hours of this clinic were convenient for me.	3.93 ± 1.03
Q5	My physical therapist carefully explained the treatments I received	4.24 ± 0.76
Q6	My physical therapist treated me respectfully	4.43 ± 0.81
Q7	The staff at the clinic was respectful	4.18 ± 0.79
Q8	My physical therapist answered all my questions	4.34 ± 0.89
Q9	My physical therapist advised me about ways to prevent future problems	4.27 ± 1.01
Q10	The clinic and its dependencies were clean.	3.06 ± 1.15
Q11	My physical therapist gave me detailed instructions about the home exercise program.	4.33 ± 0.91
Q12	In general, I’m completely satisfied with the services I received from my physical therapists	4.08 ± 0.83
Q13	I would return to this clinic for future services or treatment	3.92 ± 1.06

SD: Standard deviation

Table 4. Overall patients' satisfaction with physical therapy care

Patient Satisfaction		Mean \pm SD
Factor one	Interpersonal	3.72 \pm 0.97
Factor two	Convenience and Efficiency	4.17 \pm 0.82
Factor three	Patient Education	4.3 \pm 0.95
Factor four	Global items	4.01 \pm 0.94
Overall		4.05 \pm 0.88

Comparison of patients satisfaction between age classes, TBSA, sex, and Occupations.

A marked increase in patient satisfaction was observed in the interpersonal domain of subjects, global items, and overall patient satisfaction of subjects 34-65 years compared with that of subjects 15- 33 years ($p < 0.05$). There was no clear disparity in patient satisfaction in convenience and efficiency and patient education between subjects of 15-22 years and subjects 34-65 years ($p > 0.05$).

There was no marked disparity in patient satisfaction in the interpersonal domain, convenience, and efficiency, patient education, global items, and overall patient satisfaction between cases with 9-22% TBSA and cases with a percentage of 23-65% TBSA and between females and males ($p > 0.05$).

There was a crystal-clear increase in patient satisfaction in the interpersonal domain of employees and housewives compared with that of farmers ($p < 0.05$). There was a clear increase in patient satisfaction with

convenience and efficiency, patient education, global items, and overall cases of housewives compared with that of farmers ($p < 0.05$). There was no marked disparity in patient satisfaction between employees, housewives, and students ($p > 0.05$) as highlighted in **Table 5**.

DISCUSSION:

With an average score of 4.05 out of 5, or roughly 81% satisfaction, according to the MRPS, the outcomes of the current academic work showed that cases were extremely satisfied with the physiotherapy services. This indicates that the quality of the physical therapy care was also quite good.

The findings showed that cases were quite satisfied with physical therapy services and that overall satisfaction levels were very high. This could be attributed to the fact that residents and staff who are always focused on showing respect to cases and their families provided physical therapy services to cases. Additionally, there was a high level of security in the treatment and thorough information regarding the treatment plan. This and the cases' satisfaction were

associated. Cases thought their needs had been met and that the therapist had comprehended their issue when they felt satisfied.

With an average score of 4.17, the convenience and efficiency component, which includes statements like “My physical therapist explained the treatment I received and “My physical therapist answered all my questions,” revealed a high degree of

satisfaction. it has been discovered that total satisfaction was strongly correlated with those two items in particular. This finding is in line with Beattie et al.'s academic work (2011) that a key element in sustaining high levels of patient satisfaction is giving patients comprehensive explanations regarding their symptoms and the justification for the intervention.

Table 5. Comparison of patient satisfaction between age classes, TBSA, sex, and occupations.

	Interpersonal	Convenience /Efficiency	Patient Education	Global items	Overall
Age classes					
15 to 33 years	3.58 ± 0.95	4.08 ± 0.83	4.17 ± 0.98	3.87 ± 0.94	3.92 ± 0.89
34 to 65 years	3.86 ± 0.98	4.27 ± 0.80	4.43 ± 0.91	4.15 ± 0.93	4.18 ± 0.87
MD	-0.28	-0.19	-0.26	-0.28	-0.26
t- value	-2.03	-1.60	-1.97	-2.11	-2.01
p-value	0.04	0.11	0.50	0.03	0.04
TBSA					
9-22% TBSA	3.82 ± 0.98	4.21 ± 0.81	4.34 ± 0.93	4.10 ± 0.95	4.12 ± 0.88
23-65% TBSA	3.60 ± 0.96	4.13 ± 0.82	4.25 ± 0.97	3.91 ± 0.92	3.97 ± 0.88
MD	0.22	0.08	0.09	0.19	0.15
t- value	1.61	0.62	0.69	1.41	1.14
p-value	0.11	0.53	0.49	0.16	0.25
Sex					
Females	3.92 ± 0.93	4.29 ± 0.75	4.48 ± 0.85	4.16 ± 0.93	4.21 ± 0.83
Males	3.62 ± 0.98	4.12 ± 0.83	4.22 ± 0.98	3.94 ± 0.94	3.97 ± 0.90
MD	0.3	0.17	0.26	0.22	0.24
t- value	1.86	1.41	1.77	1.5	1.71
p-value	0.06	0.16	0.07	0.13	0.08
Occupation					
Employee	3.76 ± 0.94	4.24 ± 0.77	4.36 ± 0.93	4.05 ± 0.94	4.10 ± 0.86
Farmer	3.02 ± 0.85	3.64 ± 0.98	3.71 ± 1.13	3.42 ± 0.83	3.44 ± 0.91
Housewife	4.03 ± 0.88	4.33 ± 0.65	4.56 ± 0.78	4.22 ± 0.88	4.28 ± 0.77

Student	3.64 ± 1.05	4.11 ± 0.87	4.20 ± 0.94	3.97 ± 0.94	3.98 ± 0.93
F-value	4.36	3.18	3.45	3.04	3.76
p-value	0.005	0.02	0.01	0.03	0.01

On one level, the outcomes of the current work demonstrate that patient satisfaction with physical therapy services is most closely connected with the caliber of patient-therapist interactions with regard to components one and two. This suggests that the therapist is giving the patient enough time, acting with excellent communication and listening skills, and clearly outlining the course of treatment.

When it comes to factor four, the overall items, which include statements like “In general, I am completely satisfied with the services I received from my physiotherapist” and “I would return to this clinic for future services or treatment” showed a moderate average of 4.01, which represents satisfaction at about 80.2%, indicating that patient satisfaction in the overall items was very good.

On another level, the current work reflected the idea that there was a noticeable increase in overall patient satisfaction of cases 34-65 years compared with that of cases covering the range of 15-33 years. Older clients were more likely to agree that their physical therapist had assisted them in better understanding and managing their health condition because they wanted to quickly return to their usual lifestyle and depend on themselves. Older clients also tended to view accessibility of services more favorably.

This finding corroborated a study by McKinnon (2001) that found elderly patients to be more content than younger ones. According to another study, younger cases were shown to be happier with their physiotherapy treatment than older ones. (Ampiah et al., 2019). The disparity in results might be related to variances in case expectations, geographic areas, and indices measured in earlier investigations.

Results showed that overall case satisfaction markedly increased for employees, who received an average score of 4.28 as opposed to 3.44 for farmers. Additionally, a housewife's average case satisfaction score in the interpersonal category increased markedly when compared to a farmer's, rising to 4.10. The relationship between the therapist and case increases as employees and housewives have better communication skills than farmers, especially when it comes to meaningfully exchanging pertinent information.

They comprehend the function physical therapy plays after a burn better than farmers do, so they follow the home program, grasp the physiotherapist's instructions, and manage their health conditions better. This is crucial for case satisfaction with healthcare. However, there are no discernible gender disparities in satisfaction.

Finally, based on the outcomes of the current academic work, a number of factors,

including professional interaction between the case and therapist, particularly the meaningful exchange of pertinent information, giving cases clear explanations of their symptoms and the justification for the intervention, the therapist spending enough time with the cases, exhibiting strong communication and listening skills, and clearly outlining the course of treatment are all important. The current academic work was, however, constrained by the physician's lack of focus on the function of physical therapy following burns.

CONCLUSION:

Physical therapy services in burn units at Beni Seuf general hospitals were well-received by cases.

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