PATIENT SATISFACTION WITH BURN AND SURGERY PHYSICAL THERAPY UNITS

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ABSTRACT

Objective: To test the psychometric properties of the Arabic Patient Satisfaction Questionnaire (PSQ) and measure the quality of services that offered by different hospitals and clinics categories to ensure better care delivery.

Material and Methods: Measuring psychometric properties of Arabic PSQ which were: internal consistency by measuring Cronbach’s alpha and test-retest reliability by asking 101 Patients (45 male + 56 female) with burn, wound or post-surgery, their ages were ranged from 17 to 70 years old to fill the Arabic PSQ scale. Average three days interval, they were asked to re-fill it again. Measuring patient satisfaction by performing statistical analysis of 1st score of data collection to all questionnaire items.

Results: The internal consistency was excellent (Cronbach’s alpha=0.924) and test-retest reliability was good (Pearson correlation coefficient (PCC) = 0.689). Patient satisfaction was measured by performing simple descriptive statistics and measuring frequency and percentage of all items of the questionnaire.

Conclusion: The Arabic Patient Satisfaction Questionnaire is reliable and has high internal consistency enough to measure the quality of physical therapy services that offered by different hospitals and clinics. It also concluded that high satisfaction among patients seeking physical therapy treatment in Private Clinics than those who seeking the same services in Teaching Hospital and Ministry of Health Hospitals, irrespective of the nature of their case, weather inpatient or Outpatient.

Key Words: Patient Satisfaction, Physical Therapy Services, Psychometric Properties

I. INTRODUCTION

Patient Satisfaction (PS) could be a multi-dimensional phenomenon that reflects the patient’s encounters whereas seeking healthcare. It is straightforwardly related with treatment outcomes and compliance with the treatment and has been detailed to be a key degree of quality and outcome of wellbeing care framework (1). Patients who report higher fulfillment are regularly more likely to benefit from their treatment (2).

When patients are dissatisfied, they can spread a negative message approximately an organization, resulting in an overwhelming misfortune to that organization. Patients who report tall fulfillment are more likely to continue the relationship with the wellbeing care practitioner by looking for extra care when required and follow to recommended treatment plans. Understanding fulfillment is a multidimensional wonder, which incorporates the following variables: (1) patient-related variables; (2) physiotherapist-related components; and (3) other components (3).

It shows up that the level of satisfaction shifts with the disease condition. Subsequently, satisfaction is by and large higher in patients with intense conditions than in those with chronic conditions, conceivably since those with intense conditions are more idealistic almost their result. Patients’ age also appears to be a critical calculates, with more seasoned patients reporting more fulfillments. This may be since older patients, adapting with incessant torment and portability problems, have a more prominent require for and thus appreciation of physiotherapy services. Encourage, more seasoned individuals may have lower expectations than more youthful patients. There too shows up to be sex-related contrasts in fulfillment, with females reporting more fulfillment than males (4).
A number of studies have investigated the patient satisfaction because patient satisfaction is an important indicator of the quality of care provided to recipients of health services. In Sri Lanka, there is a dearth of research on patient satisfaction, particularly in the arena of physiotherapy services. Such research is important to address any issues in the physiotherapy service, such that patients’ needs are better catered for, as well as to improve the marketability of physiotherapy services (5).

II. MATERIAL AND METHODS

The researcher selected the Arabic version of patient satisfaction questionnaire because it’s one page concise and clear scale and suggesting that it would take short time to be filled.

In this chapter the procedures followed in the collection and analysis of data for the study was presented under the following headings:

- Study Design
- Participants
- Measurement Tools
- Procedure of the study
- Statistical procedure

Study Design

The present study was a Non-Experimental Cross-Sectional Survey Research with 101 male and female participant.

Participants

The current study was performed on all Patients who were treated in Burn and Surgery Physical Therapy Units at the Faculty of Physical Therapy –Cairo University, MTI University, Om El Masreen Hospital, Imbaba Hospital and MG Group Clinic from 1st January 2019 to 20th January 2021. 101 patients (45 male +56 female) undergoing physical therapy treatment were participated in the study. The 101 patients attending physical therapy services was from Teaching Hospitals and Institutes Organization (THO) (n=46), Ministry of Health Hospitals (n= 31) and Private clinics (n= 24) in Cairo participated in the study.

Inclusion Criteria

The participants were selected under the following criteria: -

- Their ages were more than 16 years.
- All participants had to be able to read and write in Arabic language.
- All of them understood the benefits of the Arabic Patient Satisfaction Questionnaire.
- All participants had burn, wound or post-surgical problem.
- Ethically all rights of participants were protected and their names and identifying characteristics would not include in database of the study.

Exclusion criteria

The following participants were excluded from the current study:-

- Participants who unable to fill the questionnaire due to cognitive impairment or language difficulties.
- Participants who had visual problems.
- Participants who unable to cooperate well due to psychological disorders.

Material Tool

A cross sectional survey was used to measure patients' satisfaction with physical therapy and rehabilitation services in different types of Burn, Surgery and Wound Units in Cairo (Egypt). A validated Monnin and Perneger's questionnaire with a 5-points Likert scale (Appendix A) was utilized.
A questionnaire prospective design by self –administered questionnaires to the patient population was used by a standardized and validated survey questionnaire (6) for both in-patients and out-patients where the aspects of accessibility, communication, attitude in addition to socio-demographic variables have been outlined.

As the present research was also targeting the study of the physical therapy rehabilitation services in Egypt, the term physical therapist is replaced by doctor in the questionnaire. The current study utilized the Arabic translated version that performed in KSA (Appendix B) (7) with simple modification to meet the Egyptian culture.

The Arabic Patient Satisfaction questionnaire consists of the following: -

- Brief Instructions that inform the patients about how to complete the Questionnaire.
- The item number (1-3) that ask about the reception and its responsibilities (Admission Subscale).
- The item number (4-9) that ask about the quality of health service (Treatment Subscale).
- The item number (10) that ask about Indications to help patients find their way around and in hospital or clinic buildings (logistic Subscale).
- The researcher performed simple modifications on the validated questionnaire: change item number (11, 12) to ask about parking cars and treatment cost, to be adapted to Egyptian culture ( logistic Subscale).
- The item number (13-15) that ask about the overall patient satisfaction and possibility of recommendations (Global Subscale).
- Each item has five response scores, ranging from poor satisfaction to excellent one (1 –5) Likert scale.

Procedure

- Patients (both inpatient and outpatient) received the Arabic Patient Satisfaction questionnaire after receiving 3 sessions of physical therapy in Teaching Hospitals and Institutes Organization (THO), Ministry of Health hospitals and Private Clinics.
- Patients were asked to fill the questionnaire after receiving (3 to 6) sessions of physical therapy.
- Three days apart, patients were asked to re fill the questionnaire again.
- Patients were contacted by face to face.

Reliability

According to the American Psychological Association (APA), reliability is the degree to which test scores are free from errors of measurement. Other terms that are similar to reliability are accuracy, stability and consistency (8). Internal Consistency of the baseline score was measured by using Cronbach’s alpha coefficient. Test-retest reliability was analyzed by using Pearson Correlation Coefficient (PCC) to measure the strength of relationship between 1st score and 2nd score.

Statistical procedure

- Statistical analysis were performed using SPSS 24.0
- Test –retest reliability of both questionnaires were measured by using Pearson Correlation Coefficient PCC to correlate the 1st and the 2nd scores .
- Internal consistencies of both questionnaires were measured by using Cronbach’s alpha coefficient.
- Descriptive analysis were made using simple statistics, The responses to the items and components of Arabic PSQ were coded on a 5-point Likert scale, with 5 indicating “complete satisfaction” and 1 indicating “complete non-satisfaction”. Data were presented as frequencies and percentages for categorical variables.
III. RESULTS

Subjects’ descriptions

As shown in Table 1 the characteristics of One Hundred and one Patients who were treated in Burn and Surgery physical therapy units and participated in this study (45 males+ 56 females), Twenty Nine participants were lost to follow-up and did not complete the 2nd data collection session. The main reason for loss to follow-up was insufficient hospital facilities. Patients’ ages ranged from 17 to 70 with average 45.5. Age is expressed as Average with the range in parenthesis.

Table 1. Demographic and clinical characteristics of the sample

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Results</th>
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<tr>
<td>Age</td>
<td>45.5 (17-70) SD=15.8</td>
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<tr>
<td>Gender</td>
<td>M: n=45 F: n=56</td>
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Note: M: Male, F: Female.

Internal Consistency

The internal consistency of the Arabic Patient Satisfaction Questionnaire was assessed by using Cronbach alpha coefficient. The alpha coefficient for the fifteen items excellent (alpha = 0.924) (Table 2).

Table 2. Internal Consistency Statistics

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<tr>
<td>Cronbach’s Alpha</td>
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<td>0.924</td>
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Test retest Reliability

Arabic Patient Satisfaction Questionnaire test- retest reliability was assessed by using Pearson Correlation Coefficient (PCC). The average period between the 1st and the 2nd tests was three days. There was a good direct relationship between 1st score and 2nd one. The PCC was strong direct relationship (r=0.689) with p value = 0.000 (Figure 1).

Figure 1. Good direct relationship between two scores of Arabic Patient Satisfaction Questionnaire

Questionnaire Analysis
One Hundred and One patients were filled the Arabic Patient Satisfaction Questionnaire in different hospitals and clinics categories. Patient satisfaction varies according to service that offered by different hospitals and clinics categories. Table (3) shows the number and percentages of highly satisfied patients and their comparison by hospitals and clinics category.

Table 3. Patient Satisfaction Percentage according to simple descriptive statistics

<table>
<thead>
<tr>
<th>Patient Satisfaction Item Number</th>
<th>Highly Satisfied Patient in Private Clinics</th>
<th>Highly Satisfied Patient in THO</th>
<th>Highly Satisfied Patient in MOH</th>
<th>Total Highly Satisfied Patients</th>
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<tr>
<td></td>
<td>N=24</td>
<td>N=46</td>
<td>N=31</td>
<td>N=101</td>
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<td>Q1</td>
<td>83.3%</td>
<td>26.1%</td>
<td>16.1%</td>
<td>36.6%</td>
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<tr>
<td>Q2</td>
<td>91.7%</td>
<td>23.9%</td>
<td>12.9%</td>
<td>36.6%</td>
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<tr>
<td>Q3</td>
<td>83.3%</td>
<td>28.3%</td>
<td>22.6%</td>
<td>39.6%</td>
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<tr>
<td>Q4</td>
<td>95.8%</td>
<td>19.6%</td>
<td>25.8%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Q5</td>
<td>91.7%</td>
<td>26.1%</td>
<td>9.7%</td>
<td>36.6%</td>
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<tr>
<td>Q6</td>
<td>95.8%</td>
<td>17.4%</td>
<td>22.6%</td>
<td>37.6%</td>
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<tr>
<td>Q7</td>
<td>83.3%</td>
<td>6.5%</td>
<td>29%</td>
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<tr>
<td>Q8</td>
<td>54.2%</td>
<td>30.4%</td>
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<tr>
<td>Q9</td>
<td>87.5%</td>
<td>26.1%</td>
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<td>91.7%</td>
<td>32.6%</td>
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<td>Q11</td>
<td>45.8%</td>
<td>28.3%</td>
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<td>Q12</td>
<td>75%</td>
<td>23.9%</td>
<td>19.4%</td>
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<td>Q13</td>
<td>91.7%</td>
<td>17.4%</td>
<td>19.4%</td>
<td>35.6%</td>
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<tr>
<td>Q14</td>
<td>100%</td>
<td>47.8%</td>
<td>35.5%</td>
<td>56.4%</td>
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<tr>
<td>Q15</td>
<td>100%</td>
<td>50%</td>
<td>45.4%</td>
<td>60.4%</td>
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IV. DISCUSSION

Persistent satisfaction is a vital patient-focused pointer of the quality of understanding care. It is known that fulfilled patients are more likely to follow to treatment and have the next health-related quality of life (10).

Other researchers performed the cross-cultural adaptation process to the Patient Satisfaction questionnaire in Jeddah, from the English version to the Arabic one with respect to Arabic culture and they measured patient perceptions of the quality of health (7). The current study performed little modifications and change in item number (11, 12) to ask about parking cars and treatment cost, to be adapted to Egyptian culture (Appendix C).

The internal consistency of the Arabic Patient Satisfaction Questionnaire was better than that of the original English one. It was evaluated by calculating Cronbach alpha coefficient (alpha = 0.924) indicating excellent internal consistency while in original English one (alpha = 0.77) that was created by Monnin and Perneger's (2002) indicating high internal consistency.

In the process of reliability, the current study has established that the Arabic Patient Satisfaction Questionnaire was reliable with good test-retest reliability as there was good direct correlation between 1st score and the 2nd one. It was evaluated by calculating Pearson Correlation Coefficient (r = 0.689), while English version did not measure the test retest reliability. The average interval between both measures was three days.

Question number 11 was considered missing responses in 8 patients from total 101 participants in the Arabic Patient Satisfaction Questionnaire which referred to Parking cars because they did not have a car to park it.

The current study results show high satisfaction among patients seeking physical therapy treatment in Private Clinics than those who seeking the same services in Teaching Hospital and Ministry of Health Hospitals, irrespective of the nature of their case, weather inpatient or Outpatient.

The current study proved that highly degree of patient satisfaction was achieved in private clinics, As shown in admission subscale (item 1-3) , the percentage of satisfaction was ranged from 83.3% to 91.7% while in THO (23.9% to 28.3%) and MHO was (36.6% to 39.6%). In Treatment subscale (item 4-9), the percentage of
satisfaction in Private Clinics was ranged from 54.2% to 95.8% while in THO (6.5% to 30.4%) and MHO was (6.5% to 29%).

In Treatment subscale (item 10-12), the percentage of satisfaction in Private Clinics was ranged from 45.8% to 91.7% while in THO (23.9% to 32.6%) and MHO was (16.1% to 22.6%). In Global subscale (item 13-15), the percentage of satisfaction in Private Clinics was ranged from 91.7% to 100% while in THO (17.4% to 50%) and MHO was (35.6% to 60.4%). So the researcher considered that the overall patient satisfaction was better in private clinics.

V. CONCLUSION

The Arabic Patient Satisfaction Questionnaire is reliable and has high internal consistency enough to measure the quality of physical therapy services that offered by different hospitals and clinics. It also concluded that high satisfaction among patients seeking physical therapy treatment in Private Clinics than those who seeking the same services in Teaching Hospital and Ministry of Health Hospitals, irrespective of the nature of their case, weather inpatient or Outpatient.

REFERENCES


Appendix A

Patient Satisfaction Questionnaire

This questionnaire concerns the physical therapy you received at our hospital. Your answers will help us improve our services. Please answer each item by checking the most appropriate box. There is no right or wrong answers. Your answers will be treated confidentially.

1. Ease of administrative admission procedures
2. Courtesy and helpfulness of secretary
3. Simplicity of scheduling and time to get first appointment
4. Ability of physical therapist to put you at ease and reassure you
5. Explanations about what will be done to you during treatment
6. Quality of information you received at the end of treatment regarding future
7. Feeling of security at all times during the treatment
8. Extent to which treatment was adapted to your problem
9. Ease of access of physical therapy facilities
10. Indications to help you find your way around and in hospital buildings
11. Comfort of the room where physical therapy was provided
12. Calm and relaxing atmosphere in physical therapy rooms
13. Your physical therapy overall
14. Certainly not Probably not Not sure Yes, probably Yes, certainly
15. Would you recommend this facility to people close to you?

Thank you for your help

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Appendix B

إسْتِبْيَانَ عَنْ مَدِي رَضَا المَرْضِي عَنْ الخَدَمَاتَ التَّأَهِيلِيَّة

يفْخَصُ هَذَا الإِسْتِبْيَانَ بِالعَلَاجِ الطَّبِيعِيَّ أوِ الْوُظُيفِيَّ أوِ النَّتَفِسيَّ الذي يَنْتَقِلُ المَرْضِي بِالْبَصَمَتِي، إِجَابَاتُهُ عَفَّنُتْ لِلْبِضْرُوتِ بِالخَدَمَاتِ، لَا يُوجِدُ إِجَابةً صِحِيحَةً
ولا إِجَابةً خَاطِئَةً، أَمَّا أنَّ الإِجَابَاتِ عَفَّنُتْ تُتَحَلِّلُ بِمُنْتَهيِ السِّرِيرَةْ.

طِبقًا لِلجَلَّةِ أَخْتِرْ مَنْصُوبٍ الإِجَابةِ الَّتِي تَعَكَّسُ رَأّيكَ

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- 1. سَهُولَةِ إِجَراَءِ الدَّخُولِ
- 2. إِهَامُ وَمَسَاخِرُ السَّكرَتَارِيَّةِ
- 3. سَهُولَةِ الْحُصُولِ عَلَى أَوْلِ مَوْعِدٍ
- 4. تَقْرِيرُ الدِّكَّورُ عَلَى طَمَالِكَ وَمسَاخِرُهَا
- 5. تَقْرِيرُ وَتَصَوِّضُ مَا سُبِّطَ أَنِّي لِلْعَلاَجِ
- 6. نُوعُ المَعَالَمَاتِ الَّتِي وُصِلَتْ عَلَيْهَا فِي نَهاَيَةِ العَلاَجٍ كَحَكَةِ مُستَقِبِيَّةٍ.
- 7. مَدِيّ الْإِحْسَانِ بِالآمان خَلَالَ فَترَةِ العَلاَجِ.
- 8. الإِحْسَانِ بِالآمان خَلَالَ فَترَةِ العَلاَجِ
- 9. سَهُولَةِ العَلاَجِ لِلْحَالَّاتِ الْمَرَضَيَّةِ
- 10. سَهُولَةِ الْوصُولِ لِلواَسِطَاتِ المُسْتَخْدَمَةِ فِي العَلاَجِ
- 11. وُجُودُ عَلَامَاتِ ارْتِشَادِيَّةِ لِلْوصُولِ لِلآمانِ المَستَخْدَمِيَّةِ
- 12. مَدِيّ مَعَالَمَةِ غُرَفةِ العَلاَجِ
- 13. هَذَا وَوَاحِدًا مَنَاخُ غُرَفةِ العَلاَجِ
- 14. تَقيِيمُ الشَّامِلِ لِلْعَلاَجِ
- 15. حَلِّ سَتُنَصِّحُ المَلَكِينَ لِلْعَلاَجِ فِي نَفْسِهِنَا

Appendix C

إسْتِبْيَانَ عَنْ مَدِي رَضَا المَرْضِي عَنْ خَدَمَاتِ العَلاَجِ الطَّبِيعِيَّ لُوَاحَدَتِ الْجَرَاحَةِ وَالْحَرْوَق

الأَخْصَائِيِّ الْعَالِجِ: د/...

يفْخَصُ هَذَا الإِسْتِبْيَانَ بِالعَلَاجِ الطَّبِيعِيَّ الَّذِي يَنْتَقِلُ المَرْضِي بِالْبَصَمَتِي، إِجَابَاتُهُ عَفَّنُتْ لِلْبِضْرُوتِ بِالخَدَمَاتِ، لَا يُوجِدُ إِجَابةً صِحِيحَةً وَإِجَابةً خَاطِئَةً

كَمَا أنَّ الإِجَابَاتِ عَفَّنُتْ تُتَحَلِّلُ بِمُنْتَهيِ السِّرِيرَةْ.

طِبقًا لِلجَلَّةِ إِخْتِرْ مَنْصُوبٍ الإِجَابةِ الَّتِي تَعَكَّسُ رَأّيكَ

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<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

- قدرة الدكتور على طمانتك ومساعدتك.
- شرح ووضوح ما سيتم أثناء العلاج.
- نوعية المعلومات التي حصلت عليها في نهاية العلاج كخطوة مستقبلية.
- مدى الإحساس بالأمان خلال فترة العلاج.
- الإحساس بالأمان خلال فترة العلاج.
- مدى العلاج لحالتك المرضية.
- سهولة الوصول للوسائل المستخدمة في العلاج.
- مكان ركن سيارتي متاح.
- تكلفة الجلسات التي تقتضيها مناسبة.
- هدوء وراحة مناخ غرفة العلاج.
- تقييمك الشامل للعلاج.
- هل ستستحق المغريين لك بالعلاج في نفس المكان.