

The Rates of Reduction in Disease Complaints After Musculoskeletal Physiotherapy in Geriatric Cases

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ÖZET

Geriatrik olgularda muskuloskeletal fizyoterapi sonrası hastalık şikayetlerindeki azalma oranları

Amaç: Bu araştırma fizik tedavi ve rehabilitasyon programına alınan 65 yaş ve üzeri bireylerde fizik tedavi ve rehabilitasyon programı sonrası şikayetlerindeki azalma oranlarını belirlemek amacıyla gerçekleştirilmiştir.

Yöntem: Çalışmaya 65 yaş üzeri (73.61±6.02) 648'i (%78,4) kadın ve 179'u (%21,6) erkek olmak üzere, toplam 827 olgu dahil edildi. Olgulara toplam 10,482 seans, ortalama 12.7 seans/ hasta fizik tedavi ve rehabilitasyon programı uygulandı. Çalışmaya dahil edilen hastaların hastalıkları; romatizmal hastalıklar (osteoartrit, ankilozan spondilit, fibromyalji), periferik sinir yaralanmaları, tendinit, tenosinovit, bursit, spondiloz, disk dejenerasyonu gibi muskuloskeletal hastalıklardı. Tedavi programı tamamlandığında, tedavi öncesi ve sonrası belirlenen bulgu ve şikayet sayısındaki değişim yüzdelik oran olarak hesaplandı.

Bulgular: Fizik tedavi ve rehabilitasyon programı; uygulanan olgulardan 6'sı (0,7) %25, 5'i (%0,6) %40, 9'u (%1,1) %50, 27'si (%3,3) %60, 4'ü (%0,5) %65, 84'ü (%10,2) %75, 119'u (%14,4) %80, 5'i (%0,6) %85, 1'i (%0,1) %90 ve 505'i (%61,1) %100 oranında şikayetlerinin azaldığını; 9'u (%1,1) şikayetlerinde azalma olmadığını belirtirken, 53 olgu (%6,4) herhangi bir yorumda bulunmadı.

Sonuç: Geriatrik olgularda, fizik tedavi ve rehabilitasyon programı sonrası tüm şikayetlerin azalma oranının yüzde altmış seviyesinde kalması; tedavinin semptomatik iyileşmeyi etkileyecek çoklu değişkenler nedeniyle tam iyileşme sağlamadığına yorumlandı. Sonraki çalışmada, geriatrik hasta memnuniyetinin hastalık, hasta ve sağlık profesyonelleriyle olan etkileşiminin ayrıştırlarak incelenmesi planlandı.

Anahtar sözcükler: Geriatri, fizyoterapi, iyileşme

ABSTRACT

The rates of reduction in disease complaints after musculoskeletal physiotherapy in geriatric cases

Objective: This study was carried out to determine reduction in complaints among individuals aged 65 years and above, included in a physiotherapy and rehabilitation program following a physiotherapy and rehabilitation program.

Method: The study included 827 participants (648 female and 179 male) over the age of 65 (73.61±6.02). A total of 10,482 sessions, an average of 12.7 sessions/patient of physiotherapy and rehabilitation program were applied on the participants. The diseases of the patients included in the study were musculoskeletal diseases such as rheumatic diseases (osteoarthritis, ankylosing spondylitis, fibromyalgia), peripheral nerve injuries, tendinitis, tenosynovitis, bursitis, spondylosis, disc degeneration. When the treatment program was completed, the rate of change in the number of complaints and findings pre-treatment and after treatment was calculated as percentage.

Results: 6 (0.7%) of the participants who received physiotherapy and rehabilitation reported a 25% decrease in their complaints; 5 (0.6%) a 40% decrease; 9 (1.1%) a 50% decrease; 27 (3.3%) a 60% decrease; 4 (0.5%) a 65% decrease; 84 (10.2%) a 75% decrease; 119 (14.4%) an 80% decrease; 5 (0.6%) an 85% decrease; 1 (0.1%) a 90% decrease; and 505 (61.1%) a 100% decrease; 9 patients (1.1%) stated no decrease in their complaints and, 53 participants (6.4%) made no comments.

Conclusion: The finding that 60% of geriatric participants reported reduced complaints following physiotherapy and rehabilitation programs indicates that the treatment does not provide full recovery in all patients, due to multiple variables that may affect symptomatic recovery. Further studies are planned to investigate the satisfaction of geriatric patients by separating the disease, the patient and his/her interaction with health care professionals.

Key words: Geriatrics, physiotherapy, recovery

INTRODUCTION

Increasing life expectancy and accordingly an increasing proportion of elderly people in the total population, have

led to an increase in the number of studies to improve the health of elderly people (1,2). General health problems in elderly people mostly consist of chronic and degenerative diseases, which cause considerable physical deficiencies. In

addition, problems that are not specific to the elderly but are encountered more frequently include pains, cardiovascular diseases, cognitive inefficiencies, reduced life expectancy and social problems (3-5).

Today, as the politics and programs about aging are regulated, it is aimed to maintain good quality of life and general health rather than extending life expectancy (6,7). As the total and proportion of elderly people in society will increase even more in the future, it is very important to prevent physical diseases that directly affect quality of life, as far as possible, and to provide treatment and rehabilitation before limitations occur or become permanent.

This study was carried out to determine the reduction in complaints among individuals aged 65 years and above, considered as elderly by the WHO, following physiotherapy and rehabilitation programs (8).

METHODS

This study included 827 participants (648 female and 179 male) over the age of 65 (73.61 ± 6.02), who applied to Private Burcu Physiotherapy Branch Centre, located in the province of Istanbul (Tables 1 and 2).

Table 1: Distribution of participants by gender

Gender	n	%
Female	648	78.4
Male	179	21.6
Total	827	100.0

Table 2: Distribution of the participants by age

Age	n	%
65 – 69	251	30.4
70 – 74	239	28.9
75 and above	337	40.7
Total	827	100.0

This study was planned as a retrospective study, and pretreatment complaints and the number of findings were determined from case files. Complaints and findings were obtained from anamnesis data performed one-to-one and face-to-face. The diseases of the patients included in the study were musculoskeletal diseases such as rheumatic diseases (osteoarthritis, ankylosingspondylitis, fibromyalgia), peripheralnerve injuries, tendinitis,

tenosynovitis, bursitis, spondylosis, disc degeneration. Complaints and findings of the patients such as pain, weakness, numbness, stiffness, limitation, swelling, difficulty in walking, difficulty in gripping, difficulty in daily living activities are recorded. After the completion of physiotherapy and rehabilitation programs, the rate of reduction was calculated as percentage between the number of complaint and finding of the patients before treatment and after treatment.

Electrotherapy (analgesic currents, regenerative applications), hot/cold applications, exercise, daily life activities training were included in physiotherapy and rehabilitation programs applied to the patients in this study.

The SPSS for Windows statistical program was used to analyze the data. The chi-square test was used in comparison of categorical variables (age groups, recovery rate). Statistical significance was evaluated at the level of $p < 0.05$.

RESULTS

Epicrisis reports of the participants included in our study indicated that the participants received a total of 10,482 sessions, an average of 12.7 sessions of physiotherapy and rehabilitation program (Table 3).

Table 3: Number of physiotherapy and rehabilitation program sessions received by the participants.

Physiotherapy Session	n	%
1 session	1	0.1
2 sessions	3	0.4
3 sessions	1	0.1
4 sessions	2	0.3
5 sessions	3	0.4
6 sessions	4	0.5
7 sessions	4	0.5
8 sessions	3	0.4
9 sessions	13	1.7
10 sessions	13	1.7
11 sessions	4	0.5
12 sessions	13	1.7
13 sessions	16	2.1
14 sessions	692	89.4
15 sessions	2	0.3
Total	774	100.0

6 (0.7%) of the participants who received physiotherapy and rehabilitation reported a 25% decrease in their complaints; 5 (0.6%) a 40% decrease; 9 (1.1%) a 50% decrease; 27 (3.3%) a 60% decrease; 4 (0.5%) a 65% decrease;

Table 4: The rates of reduction in complaints of the participants

Recovery Rate	n	%
0%	9	1.2
25%	6	0.8
40%	5	0.6
50%	9	1.2
60%	27	3.5
65%	4	0.5
75%	84	10.9
80%	119	15.4
85%	5	0.6
90%	1	0.1
100%	505	65.2
Total	774	100.0

84 (10.2%) a 75% decrease; 119 (14.4%) an 80% decrease; 5 (0.6%) an 85% decrease; 1 (0.1%) a 90% decrease; and 505 (61.1%) a 100% decrease; 9 (1.1%) reported no decrease in their complaints, and 53 participants (6.4%) made no comments (Table 4).

There is no statistically significant difference between the rates of reduction in complaints by gender ($p < 0.05$) (Table 5). Additionally, there is no statistically significant difference between the rates of reduction in complaints by age groups ($p < 0.05$) (Table 6).

or dependencies in the daily activities of elderly people in line with increasing age. This situation may reduce quality of life and hence cause secondary problems. This situation, where one complaint directly affects others increases the need for health care services in elderly populations (9-12).

Although the number of people who apply to physiotherapy and rehabilitation clinics increases with age, the benefits from physiotherapy and rehabilitation programs were negatively associated with increasing age (13-14). This may also influence the finding in the present study, that only 60% of geriatric participants in our study reported complete (100%) recovery following physiotherapy and rehabilitation programs. Various variables, such as the disease, the patient and his/her interaction with health care professionals, were interpreted as possible additional factors in the recovery of patient complaints and the fact that patient satisfaction remained at this level. Although many factors may affect the recovery rates of participants, only the patients' statements were emphasized in our study and their complaints during application and those complaints that recovered following the treatment program were considered and interpreted.

Participants were selected for inclusion in the present

Table 5: Comparison of the rates of reduction in complaints of the participants by gender.

Recovery rate	Female		Male		Significance
	n	%	n	%	
0-40%	16	2.7	4	2.3	$\chi^2=2.549$ sd=3 p=0.466
50-65%	27	4.5	13	7.5	
75-85%	163	27.1	45	26.0	
90-100%	395	65.7	111	64.2	
Total	601	100.0	173	100.0	

Table 6: Comparison of the rates of reduction in complaints of the participants by age groups.

Recovery Rate	Age 65-69		Age 70-74		75 and above		Significance
	n	%	n	%	n	%	
0-40%	9	3.8	1	0.4	10	2.6	$\chi^2=8.063$ sd=6 p=0.234
50-65%	9	3.8	11	4.9	20	5.2	
75-85%	65	27.4	59	26.3	84	26.9	
90-100%	154	65.0	153	68.3	199	65.4	
Total	237	100.0		100.0	313	100.0	

DISCUSSION

Both anatomic and physiological changes, which emerge with aging and display a progressive course, cause limitations

study solely on the basis of age. The study did not investigate the length of complaint or whether the patients' conditions were chronic or acute. Similarly, we did not concentrate on different physiotherapy and rehabilitation methods that

affect treatment.

In similar studies to evaluate patient satisfaction after physiotherapy and rehabilitation, various post-treatment patient satisfaction surveys were used and their effects were investigated (15-20). Although the developed surveys consist of different number of articles and sections, the objective of all the studies was to evaluate post-treatment patient satisfaction. The present study did not include a patient satisfaction survey.

CONCLUSION

Epicrisis reports of 827 participants included in this study indicated that the participants received a total of 10,482 sessions, an average of 12.7 sessions of physiotherapy and rehabilitation program. While 505 (61.1%) of the participants who received physiotherapy and rehabilitation

reported a 100% decrease in their complaints, 269 (32.5%) of the participants reported less than 100% decrease in their complaints. Furthermore, there is no difference between the rates of reduction in complaints by gender and age groups, separately.

It is suggested that future studies may evaluate patient satisfaction following physiotherapy and rehabilitation treatment programs by utilizing such surveys. In addition, further studies are planned to investigate the satisfaction of geriatric patients by separating the disease, the patient and his/her interaction with health care professionals.

CONFLICT OF INTEREST STATEMENT

All authors in this study do not have any financial and personal relationships with other people or organizations that could inappropriately influence their work.

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