

ORIGINAL ARTICLE

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Excessive patient relatives in the examination room on the daily orthopaedic outpatient clinic and decreasing methods

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Abstract

The coronavirus pandemic, which affected the whole world at the end of 2019, is considered highly contagious. Already infected people are fundamentally supposed to be the source of infection; nevertheless, asymptomatic infected patients can also be a source of infection. Assuming that healthcare workers are also at high risk during this pandemic period, the importance of compliance with the restrictions set by health authorities increases. Patients who applied to three separate orthopedic and traumatology outpatient clinics were prospectively examined between September 1 and October 1, 2021. 740 patients were included in the study. It was assessed how many individuals joined the outpatient clinic room with the patients included in the study and whether the people accompanying them had any additional diseases. In addition, the size of the outpatient clinic room, the existence of assistant health personnel attending the physician, and the ventilation conditions of the outpatient clinic room were also investigated. The mean age was 42.1. The number of patients who applied to the outpatient clinic room alone was 141 (19%). 250 patients with one relative entered the outpatient clinic room (33%), 225 patients with two relatives (30%), 80 patients with three relatives (11%), and 44 patients with four relatives (6%). No patient entered the outpatient clinic room with more than four relatives. The mean size of the outpatient clinic rooms of the three orthopedic and traumatology specialists who conducted the study was found to be 12.4 m². This multicenter study aims to determine the proportional values of the number of unnecessary people entering the room in the routine orthopedic outpatient clinic and to present literature recommendations for the solution to this problem.

Keywords: Coronavirus, respiratory, orthopedics, outpatient

Introduction

At the end of 2019, the whole world had to face the new coronavirus pandemic. The virus is considered highly contagious, and the human population is also generally identified as susceptible. The source of infection is fundamentally thought to be already infected patients [1–3]. In addition, asymptomatic infected patients can likewise be a source of infection [4].

Like some other respiratory infectious diseases, the main routes of transmission are respiratory droplets and close contact. Exposure to high concentrations of aerosols for a long time in a relatively closed environment is likely to spread the infection.

Meanwhile, with the increase in the rate of globalization, the fact that population migration is much higher than in the early 1900s makes it more challenging to prevent and control pandemics [4].

The COVID-19 pandemic, which has a widespread effect worldwide, frequently targets healthcare workers. Healthcare professionals are at high risk at every stage, from the initial evaluation of patients with symptoms to diagnosis and implementation of treatment methods. Although health authorities have introduced some restrictions during the pandemic period, physicians are also at risk in the course of daily routine outpatient examinations to not disrupt health services. Turkey has been seriously affected by the COVID-19 pandemic, and various measures have been used to preclude morbidity and mortality. It is assumed that people living in Turkey, which hosts people of various nationalities due to its geopolitical location, have a sociological tradition of acting together [5], and it can be argued that the risk is due to the COVID-19 pandemic has increased in routine outpatient services.

This multicenter study aims to determine the proportional

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values of the number of unnecessary people entering the room in the routine orthopedic outpatient clinic and to present literature recommendations for the solution to this problem.

Materials and Methods

Data collection and setting of the study

Patients who applied to the orthopedics and traumatology outpatient clinics of three different centers between September 1 and October 1, 2021, were prospectively analyzed. Exclusion criteria for the study were: (1) patients outside the age range of 18-65, (2) patients who come with assistive walking devices such as wheelchairs, stretchers, immobilizers and therefore need a companion, (3) come to the outpatient clinic with their baby or child, patients who do not have relatives to leave them, (4) patients with mental retardation (5) patients with missing data, (6) not being willing to participate in the study were excluded (Table-1).

Table 1. Exclusion Criteria

Exclusion Criteria	<18 or >65 years old
	patients who come with assistive walking devices such as wheelchairs, stretchers, immobilizers and therefore need a companion
	come to the outpatient clinic with their baby or child, patients who do not have relatives to leave them
	mental retardation
	missing data
	not being willing to participate in the study

Participants

Medical records of a total of 1396 patients who applied to the orthopedics and traumatology outpatient clinic within one month were prospectively (759 males, 637 females) identified. According to the exclusion criteria mentioned above, 372 patients were excluded from the study (224 outside the 18-65 age range, 90 needing a companion, 19 with mental retardations, 16 patients with missing data, 23 not being willing to participate in the study), the remaining 740 patients (428 males, 312 females) were included in the study.

This study protocol was approved by the institutional review board of our institution (B.30.2.ATA.0.01.00/469)

It was evaluated how many individuals entered the outpatient clinic room with the patients included in the study and whether the people accompanying them had any additional diseases.

In addition, the size of the outpatient clinic room, the presence of assistant health personnel accompanying the physician, and the ventilation conditions of the outpatient clinic room were also studied.

Results

The mean age was 42.1 (range: 18-65). The number of patients who entered the outpatient clinic room independently was 141 (25 female (%18), 116 male (%82)) (%19). Of the remaining 599

patients, 250 (%33) patients with 1 relative entered the outpatient clinic room for examination, 225 (%30) patients with 2 relatives, 80 patients (%11) with 3 relatives, and 44 patients (%6) with 4 relatives entered the outpatient clinic room. No patient entered the outpatient clinic room with more than 4 relatives during the 1-month outpatient examination. 285 of the 1116 relatives accompanying the patients had additional diseases (%26), mainly hypertension, chronic obstructive pulmonary disease, and diabetes mellitus.

The mean size of the outpatient clinic rooms of the three orthopedic and traumatology specialists who conducted the study was found to be 12.4 m² (10, 13.2, and 14, respectively). While 2 of the 3 specialists had an assistant and a medical secretary, 1 had only a medical secretary. While the ventilation of 2 out of 3 outpatient clinic rooms could not be accomplished under optimal conditions as the windows were kept closed due to cold climatic conditions, the ventilation of 1 outpatient clinic room was considered sufficient. Detailed information is presented in Table-2.

Table 2. Clinical Outcomes

Number of patients	740
Gender (M/F)	428/312
Mean age (years) (range)	42.1 (18-65)
independent patients	141 (%19)
patients with 1 relative	250 (%33)
patients with 2 relatives	225 (%30)
patients with 3 relatives	80 (%11)
patients with 4 relatives	44 (%6)
Relatives had additional diseases	285/1116 (%26)
Mean size of the rooms (range)	12.4 m ² (10-14)

Discussion

Infectious diseases are transmitted in different ways, such as through direct contact, blood, sexual and respiratory tract. Covid -19, on the other hand, is a viral disease that has turned into a pandemic that is rapidly transmitted, primarily through the respiratory tract [1-3].

From the first moment it was identified, measures accepted by all authorities, such as increasing personal hygiene, social distance, mask usage, travel restriction, and the restriction of the number of people in closed areas, were put forward for this viral disease, and it was aimed to raise a severe public awareness with all other propaganda tools, particularly the media. [6].

The Covid-19 epidemic, which affects the whole world, has reached alarming ratios in our country, above the world average. Considering the Covid-19 pandemic data announced by the Ministry of Health, it is seen that the numbers are higher in the

eastern provinces of our country [7]. We believe that the most significant factor leading this situation is the sociological structure of our society [5].

Our study is mainly on middle-aged, mobile, and mentally healthy individuals and these people are in a position to receive outpatient services on their own. Nevertheless, only 19% of our patients entered the outpatient clinic room alone, while 81% entered with their relatives. This condition may be the subject of further research, whereas when we look at the group that enters the room with only one relative, it is observed that there are more men (82%). We hypothesize that the relatives of predominantly female patients want to make the patient feel their support.

Regardless of the reasons for the relatives of the patients to enter the examination room with the patient, they generate an excessive increase in the number of people in this area, which is very small, has inadequate ventilation conditions, and is overcrowded with allied health personnel. It is comprehended that this circumstance poses a risk not only for Covid-19 but also for other respiratory diseases. Healthcare workers are one of the occupational groups most frequently affected by the pandemic. During this period, the risk of employees who naturally come into contact with the patient likewise increases the risk if they contact the relatives of the patients unnecessarily. In our study, 26% of the patients had comorbidities. It is understood that Covid-19 is mortal in the existence of additional diseases [1]. Due to additional diseases, this unneeded contact increased the risk for healthcare professionals and all people in the room, such as patients and their relatives and hospitalized patients.

Decreasing the number of people in the outpatient clinic room to conceive preventive health services is not likely only with the physician's effort to warn additional people entering the room; A collaborative effort is needed through hospital management, politicians, and the media [8-11].

Hospital management should ensure that risky patients or their relatives are not permitted, with careful history and examination, commencing from triage. It is not required for the relatives of the patients to be taken to the outpatient clinic room and kept outside the hospital without being admitted to the hospital. Thermal camera applications can detect the risky patient group. Instructive posters can be placed in the areas where patients can notice and in different parts of the hospital, specifically while waiting for their turn to be examined in the outpatient clinic. In addition, in cases such as examinations to be applied to patients or referral to different units, it can be assured that the assistive health care personnel are organized patient relatives can be given confidence that their patients' procedures will be more comfortable. The Ministry of Health, through media platforms, can construct communication tools that define the disadvantages of patients' relatives entering the hospital and outpatient clinic units concurrently with the patient and prevent or reduce the entry of patient relatives into the outpatient clinic room. Through effective laws, negative consequences can be originated by informing the laws. All these structures in preventive health services will contribute positively to the country's economy and provide safer and higher quality health services.

There are several limitations to our study. First, the causes for the

relatives of the patients entering the outpatient clinic room were not questioned. By arranging more advanced survey studies, the reasons can be put forward more objectively, and more realistic solutions can be offered for the issue. Another limitation is that all three provinces that conducted the research are located in the eastern region. We assume that the rates may be slightly higher than the Turkish average. More generalizing results can be acquired across our country with multicenter studies, including western provinces.

Conclusion

Protection from infectious respiratory diseases, specifically COVID-19, is a critical area of concern for public health. Patients who reach orthopedics and traumatology outpatient clinics have several companions for diverse reasons. The high number of individuals in outpatient clinic rooms other than those in need may adversely affect the sustainability of health services and public health in terms of infectious diseases. To avoid these negative impacts, each step of the health system has separate and essential roles.

Conflict of interests

The authors declare that there is no conflict of interest in the study.

Financial Disclosure

The authors declare that they have received no financial support for the study.

Ethical approval

This study protocol was approved by the institutional review board of our institution (B.30.2.ATA.0.01.00/469).

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