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Original Article

The Attitudes of New Graduate Physiotherapists Toward the Patients with COVID-19

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ABSTRACT

Objective: Universities have interrupted face-to-face education since the outbreak of the novel coronavirus (COVID-19) pandemic. Graduates of the 2020 spring semester were mostly concerned as they had to graduate under extraordinary conditions. Moreover, the new graduate physiotherapists are expected to be much more concerned as they also have a risk of close contact with patients with COVID-19 when they are employed. However, their concerns about treating COVID-19 patients have not been assessed. Therefore, the aim of this study was to assess the attitudes of physiotherapists, who graduated in the spring semester of 2020, toward the patients with COVID-19.

Material and Methods: Physiotherapists who graduated in spring 2020 from different universities across Turkey were included in the study. Participants were contacted via telecommunication groups. A questionnaire was developed specifically for this study and its digital form was prepared via Google Forms. The questionnaire consists of 7 questions that assess participants' concerns about COVID-19 and their attitudes toward these patients.

Results: A total of 150 new graduate physiotherapists from 10 universities were included. Twenty percent of the participants were male. The mean age of the participants was 22.7 ± 1.43 years. Forty-three percent of the participants have moderate knowledge of how to approach COVID-19 patients. In addition, 38.7% of the physiotherapists were found to have a moderate level of self-confidence in treating COVID-19 patients and 46.7% of the participants stated that they have little knowledge about the treatment.

Conclusion: This study showed that most of the new graduate physiotherapists feel that they do not have enough knowledge about how to approach those with COVID-19 and would avoid treating them. This result would be a consequence of the novelty of the virus and, thus, the lack of education about its treatment. We think that as our knowledge about this novel virus increases, the hesitating behavior of health care professionals would disappear.

Keywords: COVID-19, pandemics, physiotherapist

Introduction

In December 2019, pneumonia associated with the novel coronavirus (COVID-19) emerged in Wuhan, China, and has rapidly become a worldwide pandemic.[1-3] In Turkey, like many countries, strict isolation measures have been implemented in almost every aspect of daily life ranging from work to educational fields. As a measure, since March 13, 2020, universities have given a break to face-to-face lectures and practices.[4] Consequent concerns have risen, especially in departments that require applied sciences like physiotherapy and rehabilitation due to the lack of real laboratory and practical lessons.[5-7] It is clear that such educational concerns were mostly eminent in the final year students as they would graduate under abnormal conditions in June 2020 and had no chance to compensate for the missing of applied lessons.

When it comes to the post-graduate process, it can be clearly observed that new graduate physiotherapists have future career concerns in our country which is most obvious in 2020 graduates. The pre-existing educational concerns related to the pandemic are then accompanied by employment issues. It is predicted that one of these employment issues is the choice of work field. When they choose to work in inpatient clinics or intensive care units of the hospitals, the possibility to make direct contact with a COVID-19 patient is high for a physiotherapist in this pandemic process. It is known from previous studies that health professionals who are employed in the departments with high infection

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risk have higher levels of anxiety and fear.[8] This high anxiety level is also confirmed in the current COVID-19 pandemic among healthcare providers.[9] Professionals are also reported to be exhausted from trying to catch up with the updates about the virus and its treatment. This would result in extra hesitation and anxiety about the care they gave to the patients. This anxiety is estimated to be much higher in the physiotherapists who graduated in the spring semester of 2020 as the COVID-19 was a very recent new type of virus and it was still under research for its features during their pre-graduation period. Hence, they could not be educated enough about it before graduation.

For all those reasons above, it is predicted that new graduate physiotherapists would have a high level of anxiety about treating patients with COVID-19 for 2 main reasons. Firstly, they have some pre-graduation educational concerns as they could not complete the proper syllabus and graduated under pandemic conditions. As a result of viral pandemic, additional concerns were present as the virus emergence was very recent during the months before their graduation. Secondly, they would have to treat COVID-19 patients as the pandemic still appears to continue. At least, it is possible that they would treat patients with post-COVID or long COVID problems.[10-12] For those reasons above, it is thought to affect the future employment preferences—like not choosing hospital departments—in the new graduate physiotherapists; however, the attitudes toward those patients have not been assessed so far. Therefore, this study aimed to assess the attitudes toward the patients with COVID-19 in physiotherapists who graduated in the spring semester of 2020.

Material and Methods

This was a cross-sectional survey and included the physiotherapists who graduated in the spring semester of 2020 from various universities in Turkey.

The study design was approved by the Gazi University Ethics Committee (Date: December 23, 2020, No : E-91610558-604.01.02). As this study was conducted via online, the informed consent description was given in the information section of the questionnaire before the enrollment. The questionnaire participant could progress to the questionnaire only after confirming to participate.

Participants

Physiotherapists who graduated in the spring semester of 2020 from a variety of universities across Turkey were contacted via telecommunication groups (e-mail or message groups). The contact was made by reaching the representatives of their final year of the new graduates. Physiotherapists who are currently employed class were excluded from the study.

Assessments

A questionnaire was developed specifically for this study and its digital form was prepared via the Google Forms application. The questions of the survey were prepared based on the concerns expressed by the new graduates. In the online form of the questionnaire, a detailed description of the study was given in the introduction of the e-mail or the message. Before stepping to the questions, we only delivered recorded the age, gender, and the university that he or she had graduated from. The participant could only progress to the questions after confirming to participate in the study voluntarily. To note, a highlighted warning was added into the introduction not to fill the questionnaire if the participant has already been employed.

The questionnaire consisted of 7 questions that assess the concerns of the participants about COVID-19 and their attitudes toward the patients who suffer from COVID-19 (Appendix 1). The participants were asked to mark the appropriate option for each expression as "never," "a little," "very" or "completely." As the questionnaire used for this study was unique, its initial form was tested in a group of participants before the start of the study. The questionnaire was sent to 10 new graduate physiotherapists who were also eligible for the study with an additional rating section. In this additional section, they were asked to assess the clarity of each item on a 3-point scale as "fully understandable," "moderately understandable" or "not at all." The items were revised according to the testers' comments and the final version of the questionnaire was then sent to the participants. The results of the test group (n = 10) were excluded from the study analysis.

Statistical analysis

The Google Forms application, by which the digital version of the survey was prepared, provides the overall breakdown of the survey results to the users for further analysis. Mean ± SD for participants' descriptive information, numerical and percentage distributions were given for the other answers.

Results

A total of 763 physiotherapists were reached through e-mail and message groups. Out of the total 763 physiotherapists, 150 of them participated in the study and they were all included in the analysis. The distribution of the number of physiotherapists according to the universities is given in Figure 1.

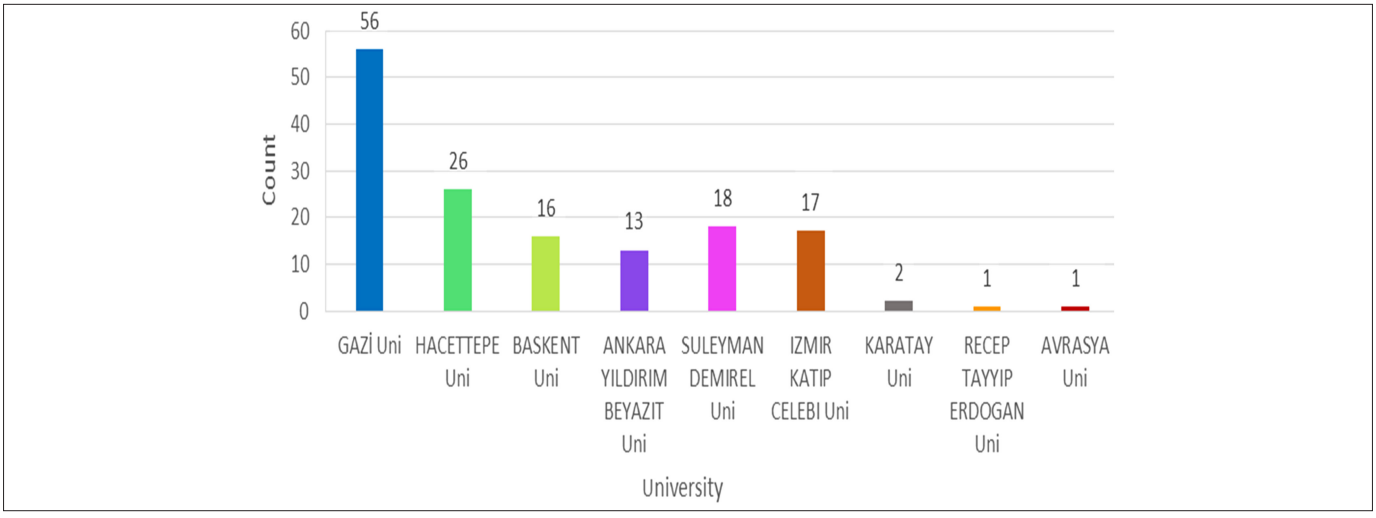

Figure 1. Number of physiotherapists according to the universities.

In summary, participants from 10 different universities were involved in the study and most of the participants (37.3%) were graduates of Gazi University; other participants were from Hacettepe University, Baskent University, Ankara Yildirim Beyazit University, Suleyman Demirel University, Izmir Katip Celebi University, Karatay University, Recep Tayyip Erdogan University, and Avrasya University.

Twenty percent of the participants were male and 80% were female. The mean age of the participants was 22.7 ± 1.43 years.

Each item of the questionnaire was analyzed regarding the distribution of the responses and the percentages are given in Figure 2(a-g).

As a result, 43% of respondents have moderate knowledge of how to approach COVID-19 patients (Figure 2b). In addition, 38.7% of the physiotherapists were found to have a moderate level of self-confidence in treating COVID-19 patients (Figure 2e) and 46.7% of the participants were found to have little knowledge about the treatment of these patients (Figure 2f).

Discussion

As the top issue of 2020, "the novel COVID-19" is under comprehensive research for its features all around the world. Besides its medical features, the effects of treating the patients with this novel virus on health care professionals are also under research. In this study, we aimed to

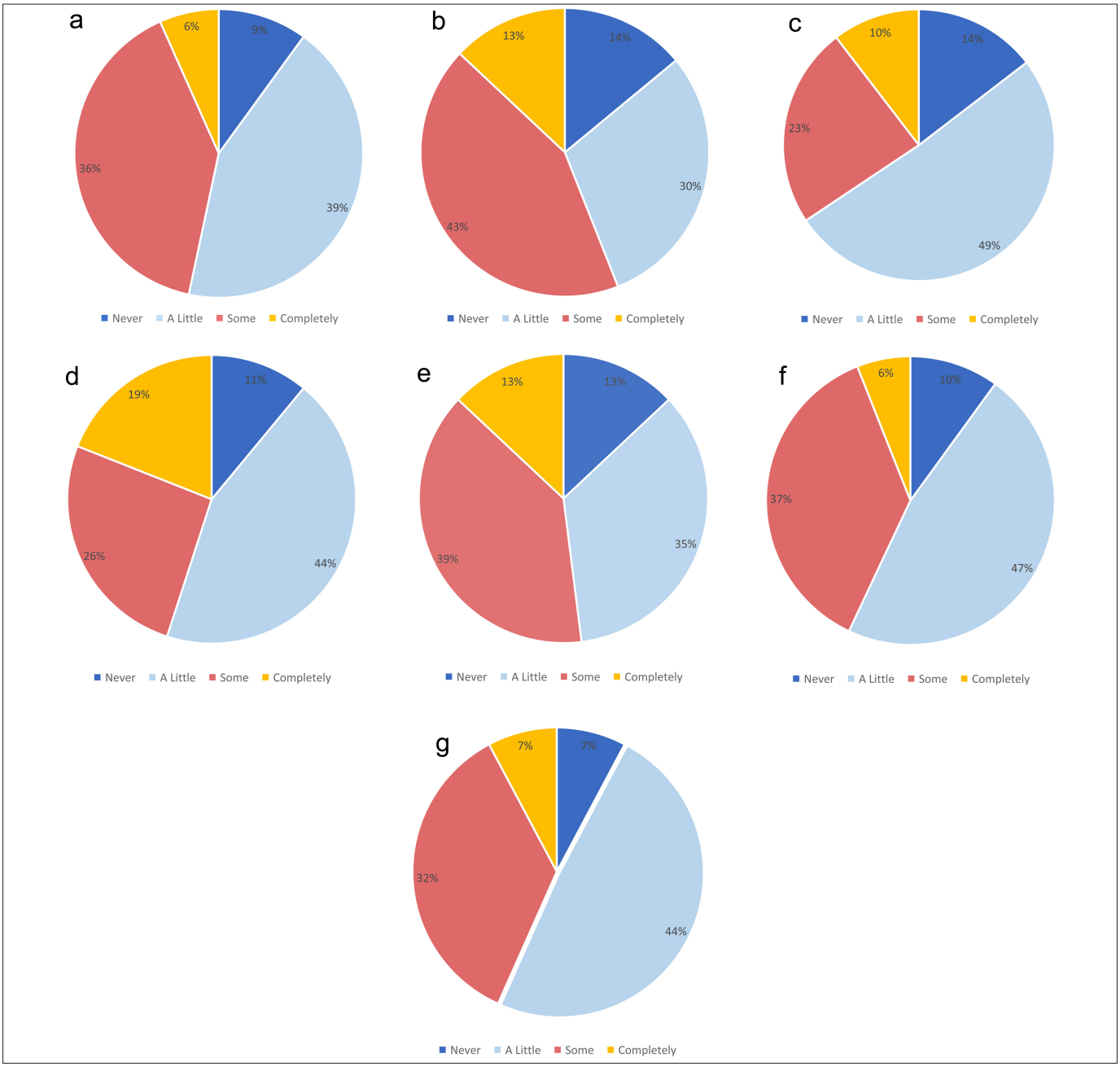

Figure 2. a-g. (a) "I'm afraid of treating the patients with COVID-19"; (b) "I don't know how to approach the patients with COVID-19"; (c) "Since I don't have enough information about COVID-19, I avoid treating a patient with COVID-19"; (d) "I feel uncomfortable while treating a patient with COVID-19"; (e) "I have confidence in treating a COVID-19 patient"; (f) "I have enough information about the treatment of the patients with COVID-19"; (g) "I'm worried to cause any complications while treating patients with COVID-19."

assess the attitudes of physiotherapists who graduated during the pandemic to those patients. It is now clear that physiotherapists participate in the treatment of those patients and thereby they are at the risk of infection of this novel virus.[13-17] This study appears to be the first to involve the new graduate physiotherapists as they are candidates who will treat the patients with COVID-19 in the future months as the pandemic continues.

The results of this study showed that—despite being at "a little" or "some" level—most new graduate physiotherapists feel that they do not have enough knowledge about how to approach those with COVID-19 and would avoid treating them. This result aroused our curiosity whether they will hesitate to apply for a job in the clinics treating the COVID-19 patients or not. The employment issue can be the focus of future studies in this population.

On the other hand, most of the participants responded to the items regarding the hesitation and avoidance about treating those with COVID-19 as "a little" or "some" instead of an absolute response like "completely." This means that their attitudes were not completely negative. This result may depend on 2 factors. First of all, the syllabus of physiotherapy schools in Turkey includes pulmonary rehabilitation lectures.[18] The novel COVID-19 is well-known for its pulmonary involvement in those patients who were infected by the virus.[19-23] Therefore, the physiotherapists do not feel totally unconfident about the treatment of those patients. Secondly, the participants of this study were all young individuals. The COVID-19 was thought to affect the young population very mildly during the period while this study was performed.[24,25] For those 2 reasons above, it can be interpreted that the participants were not totally afraid of treating a COVID-19 patient.

Daily life was interrupted at once due to the pandemic within the previous year. Online education replaced to the face-to-face lectures and practices at the schools that lead to various negative emotions like anxiety and stress among physiotherapy students.[26] Thereby, it was a very sudden change especially for the final year physiotherapy students as their schedules involve mostly face-to-face practices in the clinical settings. The participants who feel totally unconfident and concerned about treating COVID-19 patients in our study would be those who could not complete their pulmonary and/or intensive care unit practices.

As the virus is under intensive research since the start of the outbreak, health caregivers had to follow up on the updated data every day. This created exhaustion even in the public besides the health professionals. Therefore, hesitation or fearful behavior is not a surprising result as health professionals may feel that they cannot catch up with the very fast changes in our knowledge about the disease. As another reason was the participants' fearful behavior, we can figure out the significant worries of health professionals about infecting their beloved ones, especially family members.[9] As the physiotherapists are in very close physical contact with the patients during treatment sessions, the results of the questionnaire appear to be concomitant with their attitudes toward those patients.

As our knowledge about this novel virus has increased greatly compared to the previous year, the treatment ways of those patients are becoming clearer. Web-based educations are educating both the public and health professionals intensely. Even lectures have started to add teaching about the virus within the syllabus. Thus, a comparative study including the new graduates of 2021 is also in our future scope.

Study limitations

Despite being the first study involving physiotherapists in Turkey, our study is not without limitations. Firstly, we wished to enroll participants from each university in the country; however, it was impossible to reach all of them. Also, we had to limit our study sample as we included only new graduate and unemployed physiotherapists to eliminate the effect of any experience/education about COVID-19 patients. Secondly, our questionnaire was a new one as no similar tools have been developed so far due to the novelty of both the virus and the pandemic process. But we tested it in a group of participants before delivering it to the study sample in an effort to make it more sensitive. Also, we tried to include the graduates from different universities to eliminate the risk of bias as much as possible.

In conclusion, physiotherapists who graduated in the spring semester of 2020 have a little hesitation while treating patients with COVID-19. We think that, as our knowledge about the virus increases and vaccination spreads, the hesitating attitudes would disappear.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Gazi University (Date: December 23, 2020, No : E-91610558-604.01.02).

Informed Consent: Written informed consent was obtained from physiotherapists who participated in this study.

Peer-review: Externally peer-reviewed.

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Appendix 1

Dear participant,

You are asked to fill out this questionnaire considering that you may be able to treat patients with COVID-19 in your working life.

The following 7 statements include your possible feelings and/or thoughts when you are working with these patients. Read each statement and mark the options on the right side to indicate how well the statement suits you. There is no right or wrong answer. Mark the best answer that shows how you felt the moment you read the phrase.

I voluntarily participate in the research:

I confirm ☐

University you graduated from:…….

Gender: Female ☐ Male ☐

	Never	A Little	Some	Completely
I'm afraid of treating the patients with COVID-19	(1)	(2)	(3)	(4)
I don't know how to approach patients with COVID-19	(1)	(2)	(3)	(4)
Since I don't have enough information about COVID-19, I avoid treating a patient with COVID-19	(1)	(2)	(3)	(4)
I feel uncomfortable while treating a patient with COVID-19	(1)	(2)	(3)	(4)
I have confidence in treating a COVID-19 patient	(1)	(2)	(3)	(4)
I have enough information about the treatment of patients with COVID-19	(1)	(2)	(3)	(4)
I'm worried to cause any complications while treating patients with COVID-19	(1)	(2)	(3)	(4)