Original Article

Student satisfaction with initiatives for the national examination during the COVID-19 pandemic

AKIRA KUBO, RPT, PhD1)*, KO ONODA, RPT, PhD1), AKIHIRO YAKABI, RPT, PhD1)

1) Department of Physical Therapy, School of Health Science, International University of Health and Welfare: 2600-1 Kitakanemaru, Otawara-shi, Tochigi 324-8501, Japan

Abstract. [Purpose] To examine the impact of the state of emergency declared with the spread of coronavirus disease (COVID) on the initiatives for the national examination. [Participants and Methods] The participants were 257 students who graduated from the International University of Health and Welfare, in March of the years 2019–2021 (non-COVID group; graduation in 2019 and 2020, COVID group; graduation in 2021). The levels of satisfaction with the department’s initiatives, test scores, and frequency of mock examinations were assessed using a visual analog scale. [Results] The COVID group was significantly more satisfied with the department’s initiatives and frequency of mock examinations than the non-COVID group. [Conclusion] The results suggest that despite the pandemic, it is possible to improve student satisfaction through measures to familiarize students with the examination.

Key words: Satisfaction, Initiatives toward national examination, COVID-19

INTRODUCTION

The coronavirus disease (COVID-19) is an infectious disease which was previously unknown before the outbreak began in Wuhan, China, in December 20191). In Japan, the government asked all school to close and encouraged companies to introduce remote-working system to prevent the COVID-19 spread from the beginning of March. Based on the declaration of the Prime Minister, the people were instructed to stay at home and asked to refrain from nonessential outings. The condition of being unprecedented affected all Japanese people, including physical therapy students, to various levels.

Study hours and sleep duration were associated with depression during the outbreak of the COVID-19 in physical therapy students who lost part-time work or had decreased work5). Fourth-grade undergraduate students have to prepare for the national examination (NE), and in that context, the impact of COVID-19 has been serious. The lectures for NE and mock examinations (MEs) were conducted in a large classroom by following the necessary social distancing protocol. The physical therapy department teachers distributed video teaching materials on the department’s initiatives toward the NE, and launched an online home learning system.

To understand how this declaration affects the level of satisfaction with the department’s initiatives toward the NE, we conducted a survey among fourth-grade undergraduate students; the aim was to examine the impact of the state of emergency declared following the spread of COVID-19 on the level of the satisfaction with the department’s initiatives toward the NE, test scores, and frequency of the MEs.

*Corresponding author. Akira Kubo (E-mail: akubo@iuhw.ac.jp)

©2021 The Society of Physical Therapy Science. Published by IPEC Inc.

This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial No Derivatives (by-nc-nd) License. (CC-BY-NC-ND 4.0: https://creativecommons.org/licenses/by-nc-nd/4.0/)
PARTICIPANTS AND METHODS

A total of 257 fourth-grade physical therapy students who graduated from the International University of Health and Welfare, otawara campus in Tochigi prefecture, in March of the years from 2019 to 2021 agreed to participate in this study. Their average age was 22.2 ± 1.5 years old (mean ± SD). One student was excluded because their consent was not obtained. The study was approved by the Ethics Committee of the International University of Health and Welfare (Approval No. 21-Io-1).

The level of the satisfaction with the department’s initiatives toward the NE, test scores, and frequency of the MEs was assessed using a visual analog scale (VAS). The survey, as part of the study covering the years 2019 to 2021, was carried out in mid-February each year, about one week before the NE in the fourth grade, using a standard form based on previous studies. The participants indicated “not at all satisfied” on the left end or “extremely satisfied” on the right end of 100-mm straight line. These all three sessions were conducted by the corresponding author. Specific explanations were not provided to participants regarding the level of satisfaction, because the degree of satisfaction was subjective.

The participants were divided into two groups: COVID and non-COVID. Those who graduated in 2021 were put in the COVID group (age: 22.2 ± 1.4 years, 46 male and 42 female participants), and the 2019 and 2020 graduates were put in the non-COVID group (age: 22.1 ± 1.5 years, 89 male and 80 female participants).

In the statistical analysis, the level of the satisfaction with the department’s initiatives toward the NE, test scores, and frequency of the MEs was compared between the groups using the Mann-Whitney test. P<0.05 was considered statistically significant. All analyses were performed with IBM SPSS26.0 (IBM Corp., Armonk, NY, USA).

RESULTS

The two groups’ VAS scores of the three items are presented in Table 1. There was a significant difference in the level of satisfaction with the department’s initiatives toward the NE and frequency of the MEs between them—the COVID group was significantly more satisfied with these two items than the non-COVID group.

DISCUSSION

The study objective was to examine the pandemic’s impact of the level of satisfaction with the department’s initiatives toward the NE, test scores, and frequency of the MEs. Contrary to initial expectations, the COVID group was significantly more satisfied with the department’s initiatives toward the NE and frequency of the MEs than the non-COVID group—thus, the impact appears to have had a positive effect on satisfaction with these two items.

Son et al. suggested a considerable negative impact of the COVID-19 pandemic on a variety of academic-, health-, and lifestyle-related outcomes. According to their findings, many students indicated difficulty concentrating on academic work due to various sources of distraction, and a heightened level of social isolation; thus, their stress and anxiety had increased due to the pandemic.

However, in our department, despite the pandemic, MEs were conducted as usual—there has been no change in the number of MEs conducted in the last three years. The students have had more options of places to study at, including home, because of the introduction of a new measure: video materials prepared by the teachers. Furthermore, both students and teachers took precautions such as wearing a mask, hand hygiene, and ventilation in the room to prevent the spread of infection—there were no reports of any student getting infected; in fact, our handling of the COVID-19 has been well received. Therefore, it is suggested that the students’ satisfaction significantly improved through ingenuity. This is the first effort made to focus on the impact of COVID-19 via a student satisfaction survey conducted in an observational study.

On the other hand, the national average pass rate for the last three years was 86% in both 2019 and 2020 and 79% in 2021, while students’ pass rate in this study was 98% in 2019 and 100% in both 2020 and 2021. The national average pass rate was lower at 79% for the COVID group compared to 86% for the non-COVID group. Despite the difficulty of the NE being

| Table 1. The two groups’ VAS scores of the three items |
|-----------------|-----------------|-----------------|-----------------|
|                 | COVID (n=88)    | non-COVID (n=169) |
| Satisfaction with |                |                  |
| department’s initiatives toward the NE** (points) | 71 (57.5–82) | 57 (42–71) |
| test scores of the MEs (points)                  | 57 (46–67.5) | 56 (40–70) |
| frequency of the MEs* (points)                   | 72 (57.5–82) | 67 (53–79) |

Median (first quartile–third quartile).
**p<0.01, *p<0.05.

VAS: visual analog scale; NE: national examination; MEs: mock examinations.
higher in the COVID group, the pass rate in the COVID group continued to be maintained at 100%. It is presumed that some of these initiatives are objectively valuable in addition to students’ satisfaction.

However, some limitations should be noted. First, the survey using VAS may be less specific and require additional clarification. Second, the sample used was from one campus. However, given the nationwide similarities in schools transitioning to virtual classes, we expect the generalizability of these findings to be high. Nonetheless, further studies are needed to determine the pandemic’s effects on a variety of academic-, health-, and lifestyle-related outcomes beyond the period.

Conflict of interest
The authors declare no conflicts of interest in this work.

REFERENCES

1) World Health Organization: Coronavirus disease 2019 (COVID-19) Situation Report. 2020.
2) Ishizaka M, Hara T, Ito A, et al.: Factors of depression related to living habits in healthy college students under the declared state of an emergency. Asi Reha Sci, 2020, 3: 34–39.
3) Kubo A, Kurosawa K, Maruyama H: Changes in QOL of undergraduate physical therapy students after the Great East Japan Earthquake: satisfaction with life and learning at the end of the junior year of college. Rigakuryoho Kagaku, 2014, 29: 1007–1009 (in Japanese). [CrossRef]
4) Kubo A, Kuramoto AT, Kobayashi K, et al.: Influence of satisfaction with learning and living at the end of the junior and senior college years of PT students on the results of the national examination for physical therapists. Rigakuryoho Kagaku, 2015, 30: 115–117 (in Japanese). [CrossRef]
5) Kubo A, Yoshikawa K, Onoda K: Satisfaction with learning and life in physical therapy student: a 4 year longitudinal study. J Phys Ther Sci, 2021, 33: 209–212. [Medline] [CrossRef]
6) Kubo A: Importance of satisfaction level with initiatives toward the national examination: a 4-year cross-sectional study. J Phys Ther Sci, 2021, 33: 540–543. [Medline] [CrossRef]
7) Son C, Hegde S, Smith A, et al.: Effects of COVID-19 on college students’ mental health in the United States: interview survey study. J Med Internet Res, 2020, 22: e21279. [Medline] [CrossRef]