

Short communication

Attitudes and Behavior of Biomedical Students in Comparison With Other Students During the COVID-19 Pandemic

Matea Smajić ^{*1}, Petra Smajić ², Lada Zibar ^{1,3}¹ Faculty of Medicine, Josip Juraj Strossmayer University of Osijek, Osijek, Croatia² Clinical Hospital Centre Osijek, Department of Infectious Diseases, Osijek, Croatia³ Merkur University Hospital, Department of Nephrology, Zagreb, Croatia

*Corresponding author: Matea Smajić, matea.smajic@gmail.com

Abstract

Aim: Since its beginning, the COVID-19 pandemic has affected many people's usual activities and lifestyle, including Croatian students' lives. The aim of the study was to examine whether the attitudes and behaviour of students in the biomedical (B) field differed from those in other (O) fields at the Josip Juraj Strossmayer University of Osijek (JJSUO). The hypothesis was that B students would behave more responsibly.

Materials and Methods: A 10-question anonymous online survey on attitudes and behaviour related to the COVID-19 pandemic was designed and conducted. The research was carried out in November 2020 and it included a total of 348 students (46 % of B students) at the JJSUO. The data were statistically processed by the IBM ® SPSS ® Statistics 25.0 software at the statistical significance level of $P < 0.05$.

Results: Twenty-five percent of B students and 11.17 % of O students ($P = 0.001$) responded that they did not go to nightclubs, in accordance with the Civil Protection Headquarters' recommendations. Regarding their indoor socialising, 24.38 % of B students and 45.21 % of O students behaved the same as before the pandemic ($P < 0.01$). A total of 63.13 % of B and 39.36 % of O students ($P < 0.01$) responded that they would receive a vaccine against SARS-CoV-2.

Conclusion: B students behaved more responsibly than O students by reducing their socialising and going to crowded places, probably because of their education and awareness of the severity of COVID-19. Accordingly, more of them were willing to get the vaccine against SARS-CoV-2.

(Smajić M, Smajić P, Zibar L. Attitudes and Behavior of Biomedical Students in Comparison With Other Students During the COVID-19 Pandemic. SEEMEDJ 2021; 5(2); 38-43)

Received: Aug 25, 2021; revised version accepted: Nov 4, 2021; published: Nov 26, 2021

KEYWORDS: medical students; COVID-19; physical activity; vaccination

Introduction

Since the World Health Organization declared COVID-19 a pandemic in March 2020 (1), people's usual activities and lifestyle have fully transformed. Since social gatherings have been restricted ever since then (2), the pandemic has exerted a huge impact on everyone's day-to-day life, especially on young people's social life. In the summer of 2020, Croatia did not have high numbers of daily COVID-19 cases (3). However, by the beginning of October, the numbers started to rise once again (3). Due to alleviated restrictions in that transitory period (4), people in Croatia prevented the coronavirus transmission primarily by their own behavior. Therefore, we decided to examine the attitudes and behaviour of students at the Josip Juraj Strossmayer University of Osijek during the ongoing pandemic. The students were divided into two groups, biomedical students (B) and other (O) students, and the hypothesis was that B students would behave more responsibly.

Materials and Methods

In November 2020, a 10-question anonymous online survey on attitudes and behaviour related to the COVID-19 pandemic was designed and conducted using Google Forms. It included a total of 348 students at the Josip Juraj Strossmayer University of Osijek, with 45.98 % of B students and 54.02 % of O students. Of the total number of respondents, 70.11 % were female and 29.89 % were male. Respondents were aged 18 or above, opted in to the study voluntarily and were required to give their informed consent before starting the survey. Their habits during the pandemic were examined, including going to nightclubs, socialising indoors and going to a gym. We also considered whether they or their families had tested positive for COVID-19 on a polymerase chain reaction (PCR) test. In addition, we asked for their general opinion about the vaccine and checked if they would get a vaccine once available on the market.

Statistical Analysis

Chi-square test was used to examine the difference between the two groups. The data were statistically processed by the IBM®-SPSS® Statistics 25.0 software. Statistical significance level was set to $P < 0.05$.

Results

Twenty-five percent of B students and 11.17 % of O students ($P = 0.001$) responded that they did not go to nightclubs, in accordance with the Civil Protection Headquarters' (CPH) recommendations. A total of 65.8 % of both B and O students acknowledged that they went out less and more carefully (Table 1). There was no statistically significant correlation between going out and considering whether they or their families had tested positive for COVID-19.

Regarding their indoor socialising, 24.38 % of B students and 45.21 % of O students behaved the same as before the pandemic ($P < 0.01$). Only 8.05 % of all students claimed that they did not socialise indoors at all, in accordance with the CPH's recommendations (Table 1). Once again, there was no statistically significant correlation between the students' or their families' positive tests for COVID-19 and the students' decisions about socialising indoors.

A total of 35.34 % of B students and 54.74 % of O students stated that the level of their sports and recreational activities was the same as before the pandemic, while 64.66 % of B students and 45.26 % of O students answered that they performed recreational activities in accordance with the CPH's instructions and measures ($P < 0.01$). For the purpose of this comparison, 95 students who did not exercise were excluded (Table 1).

Table 1. Going to nightclubs, socialising indoors and doing sports activities during the COVID-19 pandemic (N = 348)

Question	Table 1.				P*
	O students		B students		
	n	%	n	%	
GOING TO NIGHTCLUBS					
I do not go to nightclubs in accordance with the CPH's recommendations.	21	11.2	40	25	0.001
I go out less and more carefully.	128	68.1	101	63.1	
I go out the same as before the pandemic.	39	20.7	19	11.9	
INDOOR SOCIALISING					
I do not socialise indoors in accordance with the CPH's recommendations.	12	6.4	16	10	< 0.01
I socialise indoors less and more carefully.	91	48.4	105	65.6	
I socialise indoors the same as before the pandemic.	85	45.2	39	24.4	
SPORTS ACTIVITIES					
I do sports activities in accordance with the CPH's instructions and measures.	62	45.3	75	64.7	< 0.01
I do sports activities the same as before the pandemic.	75	54.7	41	35.3	

CPH – Civil Protection Headquarters, B – biomedical students, O – other students

A total of 63.13 % of B and 39.36 % of O students ($P < 0.01$) responded that they would get a vaccine against SARS-CoV-2 once it was available. General opinions about vaccination given by students who would not get the vaccine were mostly related to their doubts about the effectiveness of the vaccine and their thoughts on vaccinating only high-risk groups.

Discussion

As expected, there was a statistically significant difference between biomedical students and students from other fields in terms of following the CPH's measures. Even though there was a significantly higher proportion of B students who did not go to nightclubs in comparison with O students, it was still expected that the percentage of B students who would not go to nightclubs in accordance with the CPH's recommendations would be much higher than 25 %. It must be taken into account that the research was conducted between late October and early November 2020, when Croatia (population of 4 million) had over 15,000 COVID-19 cases per week (5). Nonetheless, cafés, restaurants and nightclubs were still open, although their hours of operation were limited (6). On 12 November, there were 3,082 COVID-19 cases recorded in Croatia, which was the largest number of daily cases up to that moment (7). On 20 December, exactly a month after all the cafés, restaurants and nightclubs had been closed, 1,975 new daily cases were confirmed (8). Following a slight drop in the number of daily COVID-19 cases after their closure, it was concluded that nightclubs were one of the riskiest places for the coronavirus transmission.

At the time of the research, only recommendations and moderate measures were imposed on indoor socialising (9). Considering that, it is not surprising that a total of 124 students (34.64 %) did not follow those recommendations. However, when it comes to this issue, B students were still much more responsible than O students. The results showed that three-quarters of B students were aware of the fact that the coronavirus spreads easily in

enclosed spaces, as well as of the risk they would pose to mutual families visiting and gathering indoors with their own family.

The vast majority of B students exhibited responsible behavior as regards sports and recreational activities as well. More than half of B students claimed they performed recreational activities in accordance with the CPH's instructions and measures, meaning they worked out either at home or outdoors. The proportion of B (72.5 %) and O (72.8 %) students who were physically active (whether at a gym or at home/outdoors) at the time of the research was almost equal. These results differed from the results of a research by J. Steffen et al., who reported that medical students were much more physically active during the pandemic compared to non-medical students (10). Accordingly, the students in this study did not reduce their sports activities during the pandemic, unlike students of several other studies. In a survey by G. A. Zello et al., 90 % of the students reduced their physical activities during the pandemic (11). Moreover, in an international study by Ammar et al., it was noted that the frequency, duration and intensity of physical activities decreased by 35 %, 34 %, and 42.7 %, respectively (12). The differences noticed between this and other studies can be explained by the fact that gyms and fitness centres were not shut down at the time of this research, unlike in the two aforementioned studies.

As expected, a significantly larger number of B students expressed a positive opinion about being vaccinated against SARS-CoV-2. These results were mostly related to their education and knowledge about vaccine mechanism and effectiveness, which was confirmed by their opinions about the vaccine at the end of the survey. On the other hand, the most frequent reasons that O students pointed out as the reasons not to get vaccinated related to their fear of the short amount of time to develop the vaccine and their opinion about vaccinating only high-risk groups.

Conclusion

This is the first-ever study examining the differences between biomedical students and students from other fields based on their usual activities during the pandemic. In addition, other studies have not yet examined students' impression about the upcoming vaccine against SARS-CoV-2. As it was hypothesised, biomedical students adhered to the CPH's recommendations more and they were willing to get a vaccine against SARS-CoV-2 in a much higher proportion than students from other fields. The results could be associated with their

long-term education in the field, along with their awareness of how easily the virus spreads among people.

Acknowledgement. This study was presented as an abstract and oral presentation at the International students' conference OSCON, Faculty of Medicine Osijek, Croatia 20.3.2021..

Disclosure

Funding. No specific funding was received for this study.

Competing interests. None to declare

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¹ **Author contribution.** Acquisition of data: Smajić M, Smajić P, Zibar L
Administrative, technical or logistic support: Smajić M, Smajić P, Zibar L
Analysis and interpretation of data: Smajić M, Smajić P, Zibar L

Conception and design: Smajić M, Smajić P, Zibar L
Critical revision of the article for important intellectual content: Smajić M, Smajić P, Zibar L
Drafting of the article: Smajić M, Smajić P, Zibar L
Final approval of the article: Smajić M, Smajić P, Zibar L
Statistical expertise (statistical analysis of data): Smajić M, Smajić P, Zibar L