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Exposure to COVID-19 among Students in Six European Countries

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Introduction

The novel coronavirus pandemic is an unexpected, global phenomenon which affects people worldwide in various aspects of life.

Apart from physical health, the ongoing pandemic substantially affects mental health in a negative manner [1,2].

Due to preventive restrictions, the global population has experienced social isolation on an unprecedented scale, which is strongly related to psychological distress, high anxiety, and acute stress [3-7].

Few studies related to the COVID-19 pandemic emerged as the product of international collaboration [14]

Cross-national research on mental health during the COVID-19 pandemic more frequently pertains to the **general population** [15-19] rather than the student population [20,21]

the pursuit of international studies

Exposure to COVID-19
is associated
**with anxiety and depression
among students [22]**

AIM

The aim of this study is
to reveal the **exposure to COVID-19** among students in
six European countries:
Poland, Slovenia, the Czech Republic (Czechia), Ukraine,
Russia, and Germany.

Measurements

1. Perceived Stress Scale **PSS-10** (Cohen, Karmarck & Mermelstein, 1983)
2. Generalized Anxiety Disorder Questionnaire **GAD-7** (Spritzer et al., 2006)
3. Patient Health Questionnaire **PHQ-8** (Kroenke, K. et al., 2009)

Online survey

Google forms + SoSci Survey

Voluntary, anonymous

May – July 2020

The Study

Participants - University Students

TOTAL

N = 2,349

69% women, 78.50% Bachelor

Poland N = 301	Slovenia N = 209	Czechia N = 310	Ukraine N = 310	Russia N = 285	Germany N = 270	Turkey N = 310	Israel N = 199	Colombia N = 155
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The majority of students in six countries (65%) have experienced at least one aspect of the exposure to COVID-19.

Exposure to COVID-19 among Students in Six European Countries

- **Ukrainian** students were the most exposed group (80%) whereas the least exposed were **Czech** students (41%), $\chi^2(5, N = 1685) = 118.37, p < .001$.
- Overall, 10% of European students has experienced COVID-19 **symptoms**. Students in Germany (19%) and Russia (17%) experienced significantly more symptoms compared to students in other countries.
- The total number of **tested** students has reached 4%. Russian students have been tests for COVID-19 the most frequently (11%), then Slovenia students (4.3%), and German (4.1%), Czech (2.6%), Ukrainian (2.6%), and Polish students (1.3%), $\chi^2(5, N = 1685) = 44.35, p < .001$.
- The total of 3 students (.02%) (Ukraine, N = 1, Russia, N = 2) were **hospitalized** due to COVID-19. There were no cases of COVID-19 among students in other countries. There were no significant differences between countries.

Exposure to COVID-19 among Students in Six European Countries

- A total of 6% European students had to be in a **strict quarantine** for at least 14 days in isolation from loved ones because of coronavirus infection. Russian (11%) and German (9%) students were the most frequently in quarantine compared to Poland (2%), $\chi^2(5, N = 1685) = 33.03, p < .001$.
- Over 10% of European students had experienced **cases of COVID-19 infection among friends and family**. German (23%) and Russian (21%) students experienced the highest number of infected friends and family members compared to Polish (8%), Slovenian (7%), Czech (3%), and Ukrainian (2%) students, $\chi^2(5, N = 1685) = 126.89, p < .001$.
- Nearly 1,5% of European students experienced **death** among friends and family due to COVID-19. In Poland and Czech Republic there were no death cases (0%), whereas the highest number was in Russia (6%), $\chi^2(5, N = 1685) = 49,42, p < .001$.

Exposure to COVID-19 among Students in Six European Countries

- Over 22% of European students experienced **losing a job**. The highest percentage was observed in Poland (28%) and Ukraine (24%) whereas the lowest in Czech Republic (14%), $\chi^2(5, N = 1685) = 17.39, p = .004$.
- Among the total of students, **49%** experienced **deterioration of economic status**. Polish students were the most affected group (60%) whereas the least affected were German (25%) and Czech (26%) students, $\chi^2(5, N = 1685) = 129.57, p < .001$

Exposure to the COVID-19 pandemic among students from Poland, Slovenia, Czechia, Ukraine, Russia and Germany

	TOTAL N = 1,685		Poland N = 301		Slovenia N = 209		Czechia N = 310		Ukraine N = 310		Russia N = 285		Germany N = 270	
Variable	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Exposure to COVID-19														
Symptoms	188	11.16	26	8.60	28	13.40	12	3.90	22	7.10	48	16.80	52	19.30
Tests	70	4.15	4	1.30	9	4.30	8	2.60	6	1.90	32	11.20	11	4.10
Hospitalization	4	.23	0	0.00	0	0.00	0	0.00	2	0.60	2	0.70	0	0.00
Strict quarantine	104	6.17	6	2.00	6	2.90	12	3.90	25	8.10	31	10.90	24	8.90
Infection cases in family & friends	186	11.04	23	7.60	14	6.70	11	3.50	15	4.80	60	21.10	63	23.30
Death cases	23	1.36	1	0.30	2	1.00	0	0.00	1	0.30	16	5.60	4	1.50
Losing job	424	25.16	83	27.60	49	23.40	45	14.50	127	41.00	58	20.40	62	23.00
Lower economic status	819	48.60	180	59.60	105	50.20	83	26.80	222	71.60	161	56.50	68	25.20

Conlusions

- There are **significant differences in exposure to different aspects of COVID-19** among students in six European countries. The cultural background should be taken into consideration when exploring the mental health issues related to the COVID-19 pandemic, particularly that is it related to anxiety and depression [22].

Conclusions

- Considering, that students' population is one of the most prone to stress and anxiety, exploring exposure to COVID-19 will allow to explain mental health issues during pandemic. It will also enable creating new prevention programs tailored **to the particular experiences in particular countries.**

Thank you!

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