

MEDICAL STUDENTS IN THE FACE OF THE SARS-CoV-2 PANDEMIC: AN ESTIMATED RISK OF INFECTION AND THE NEED FOR SOCIAL SUPPORT

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Abstract

Objectives: A pandemic triggers certain attitudes and behaviors, resulting in the need for adequate social support. The aim of the study was to determine the factors influencing the estimated risk of SARS-CoV-2 infection and to assess the need for social support in a group of medical students. **Material and Methods:** The survey was conducted among 981 people, including 814 women and 167 men. For this purpose, a self-assessment survey with 22 multiple-choice questions was used. The online survey was conducted on March 20–April 2, 2020, which can be considered as the first stage of the pandemic in Poland. **Results:** The tested model for the subjective SARS-CoV-2 infection risk assessment explained 32.6% of the dependent variable variance ($F(7.945) = 66.61, p < 0.001$). The model for adherence to the recommendations for reducing the risk of SARS-CoV-2 transmission explained 9.5% of the variability ($F(8.943) = 12.39, p < 0.001$), and the model for an increased need for social support due to the SARS-CoV-2 epidemic explained 27.4% of the variability ($\chi^2(8) = 12.17, p = 0.144$). **Conclusions:** Factors important for estimating the risk of SARS-CoV-2 infection and the need for social support in the group of medical students were determined. The subjective assessment of the stress level, infection symptoms experienced and the field of study proved to be crucial. *Int J Occup Med Environ Health.* 2022;35(4):473–84

Key words:

social support, medical students, coronavirus, COVID-19, pandemic, SARS-CoV-2

INTRODUCTION

The first reports of massive incidence of pneumonia of an unknown origin came to light in December 2019 in the Chinese city of Wuhan. In early January 2020, a new coronavirus (COVID-19) was isolated, which was later named “severe acute respiratory syndrome coronavirus 2” (SARS-CoV-2) by the International Committee on Taxonomy of Viruses. As of July 27, 2020, 16 451 551 cases of the coronavirus disease had been identified worldwide, and 652 921 people had died [1].

All age groups are susceptible to contracting the infection, but the risk of becoming seriously ill increases with age. The infection is transmitted from human to human via respiratory droplets or direct contacts [2]. The incubation period is 2–14 days. The infection may be asymptomatic, with abortive or fully developed symptoms, which include mainly: fever, dry cough and dyspnoea, headache, muscle pain and fatigue. Many cases present with acute respiratory failure and multiple organ dysfunction. Mortality, depending on reports, is estimated at 2–3% [3].

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Since there are no approved treatments, prevention plays a key role. The main recommendations are hand washing, wearing surgical masks to reduce the emission of infected respiratory droplets, isolating confirmed cases of the infection, monitoring contacts, avoiding gatherings, ventilating rooms, decontaminating surfaces and using protective clothing by healthcare professionals [3,4].

In Poland, the first case of SARS-CoV-2 infection was reported on March 4, 2020. As of March 20, 2020, 325 cases had been confirmed, and 5 people had died [5]. On March 12, 2020, stationary courses at Polish universities were suspended by the decision of the Minister of Science and Higher Education. It was recommended to implement them online [6]. On March 20, 2020, the Polish government introduced a state of epidemic, restricting leaving home, free movement and gatherings of >2 people [7]. Students were isolated from their social groups, friends, partners, and sometimes also families. Additionally, medical students were exposed to the potential risk of being appointed by the government to actively fight the epidemic in the case of a rapid growth of infections [8].

The first stage of the epidemic in Poland, a significant change in the life situation and uncertainty about the near future were undoubtedly perceived by students as a crisis situation that could potentially increase the experienced levels of stress, anxiety, uncertainty and helplessness [9]. In response, the Medical University of Silesia in Katowice launched remote psychological first aid for students and doctoral students, provided by professionals with appropriate qualifications. The academic community was informed about the possibilities and conditions of using the aid via Skype. It has become important to reach people who are most at risk of the negative mental health outcomes resulting from the epidemic, and thus most in need of support.

To date, in Poland there has been no research on the impact of infectious disease outbreaks on mental

health. This results from the lack of a history of epidemics similar to SARS-CoV-2, which would be associated with restrictions introduced on a large scale. Although many reports have already been published on the impact of the coronavirus pandemic on the mental health of the population [9], including students [10], to the best of the authors' knowledge, there has been no subjective assessment of the infection risk and the need for social support, either in the general population or in narrower groups.

Taking into account the above, 2 main aims of the study were set. The first one concerned a self-assessment of the risk of SARS-CoV-2 infection and the need for social support among medical students. The other aim was very practical for psychologists. It served as an attempt to verify if and how specific factors determine the increased need for social support and the perceived risk of virus transmission and infection contraction. The authors took into account socio-demographic factors, the field of medical studies, a self-assessment of health and stress levels, behavior related to prevention in the case of contracting the infection, as well as helping others.

The authors expect that these results will quickly translate into action plans, and then into cost-effective, timely and accurate interventions.

MATERIAL AND METHODS

Participants

The study covered students from all 5 faculties of the Medical University of Silesia in Katowice, Poland. The survey was conducted among 981 people, including 814 women and 167 men, who altogether accounted for 8.2% of all students of that University. The respondents were divided into 4 groups representing specific fields of study:

- group A-351 from the medical faculty (medicine);
- group B-86 from the dental faculty (dentistry);
- group C-247 from the nursing, midwifery, medical rescue and pharmacy faculties;

- group D-259 from other faculties (physiotherapy, medical analytics, medical biotechnology, neurobiology, medical coaching, electroradiology, cosmetology, dietetics, public health, health risk management).

The distribution of the studied subjects in particular subgroups is presented in Figure 1. The age of the respondents was 19–59 years.

Using the sample size calculator [11], the minimum size was estimated at 382 people. The authors considered the number of students of medical universities in Poland in the academic year 2017/2018, i.e., 64 300 [12], the response distribution of 50%, the confidence level of 95%, and the margin error 5%.

The survey discussed in this paper is part of a larger project analyzing the cognitive, emotional and behavioral functioning of university students during the SARS-CoV-2 pandemic. In this part of the project, the authors used a self-assessment survey with demographics and 22 specific multiple-choice questions concerning the following: an estimated risk of infection, adherence to recommendations for reducing the risk of virus transmission, potential actions to be taken in case of infection, stress associated with the pandemic, health condition, the need for psychological support, and involvement in aid activities.

Based on the survey questions, several indicators were developed and used for further statistical analysis:

- An indicator for the subjective assessment of the infection risk was created by summing up the answers to 3 questions regarding the risk of: getting infected, transferring the virus to other people, and becoming seriously ill due to the infection. Cronbach's α reliability index for this scale is 0.627.
- An indicator for the subjective assessment of the risk of the relatives becoming seriously ill in the case of a potential SARS-CoV-2 infection is reflected by the average response to the above-mentioned questions in relation to the respondents' parents, grandparents, partners,

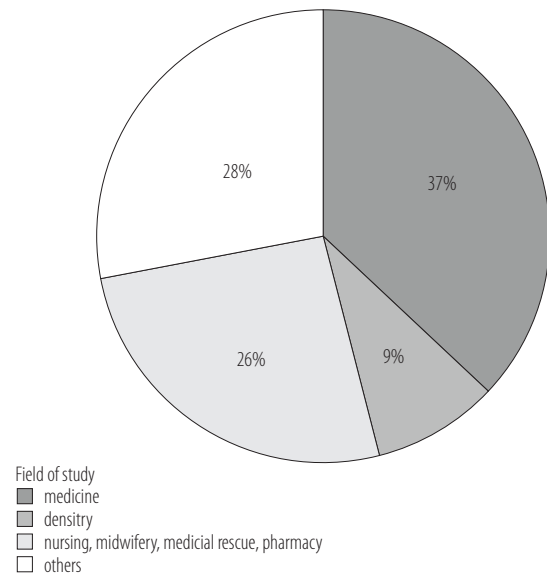


Figure 1. Distribution of persons in the group of students (N = 981) in an online survey during the first stage of the SARS-CoV-2 pandemic in Poland, March-April 2020

siblings, children and friends. Cronbach's α reliability index for this scale, consisting of 6 items, is 0.812.

- The indicator of adherence to recommendations for reducing the risk of becoming infected and/or infecting others was created by summing up the answers to 13 questions, including: avoiding touching the eyes, nose and mouth, covering the mouth when sneezing or coughing with an elbow or tissue, washing hands, disinfecting hands and objects, keeping a minimum distance of 1.5 m from people in public spaces, avoiding public places and leaving home without a clear need, limiting direct contact with the loved ones, avoiding the use of shared dishes during meals, avoiding greeting by shaking hands, wearing a protective mask, preferring to work/learn online than to work/learn in a stationary mode, or keeping the recommended social distance. The value of Cronbach's α for this scale is 0.798.
- The need for social support was assessed on the basis of a dichotomous answer to the question: "Have I needed more support from other people than usual over the last 14 days?"

- The subjective level of stress was assessed by answering the following question on the 5-point Likert scale: “Try to assess how stressful the coronavirus epidemic is for you.”
- The indicator of potential actions to be taken in the case of contracting the infection was created by summing up the answers to 10 questions (some questions had reverse scoring), including: no action, wearing a protective mask, staying home for at least 14 days, informing people about the infection if there was a contact with them, telephone contact with the primary care physician, telephone contact with State Sanitary Inspection/National Health Service (Narodowy Fundusz Zdrowia – NFZ), telephone contact with the infectious diseases ward/hospital, personally reporting to a primary healthcare physician, personally reporting to the emergency room, personally reporting to the infectious diseases ward/hospital.
- The health condition was assessed in several ways:
 - on the basis of a dichotomous answer to some questions: “Are you undergoing immunosuppressive treatment?” “Are you diagnosed with reduced immunity (whatever the cause)?” “Do you smoke?”;
 - based on the answer to a multiple-choice question about the diagnosis of chronic diseases such as: cardiological, respiratory system, hypertension, diabetes, other or none;
 - by summing up the symptoms that occurred in the last 14 days such as: fever ($>38^{\circ}\text{C}$ for a min. 24 h), muscle aches, tiredness, sore throat, cough, dizziness, rhinitis, breathing problems, headaches, chills or lack of the above symptoms;
 - by answering a question on the 5-point Likert scale: “How do you rate your overall health?”
- The involvement in aid activities was assessed on the basis of a dichotomous answer to the question: “Are you involved in volunteering activities related to the COVID-19 pandemic (education, counseling,

medical assistance, help with childcare, with daily errands, etc.)”.

The internal consistency of all indicators described above is satisfactory; the value of Cronbach’s α ranges 0.627–0.812.

Study organization

The survey was conducted in the period of March 20–April 2, 2020, which can be considered as the first stage of the pandemic in Poland. The survey was conducted online, with the link to the survey being made available on the University’s website and on Facebook groups gathering students. It was also sent to the University e-mail addresses. The survey was voluntary and anonymous. The survey received a positive opinion of the Bioethics Committee of the Medical University of Silesia in Katowice (PCN/0022/KB/59/20).

Statistics

The IBM SPSS 25 Statistics package [13] was used to compile the results. The first analysis examined how to predict the degree of the subjective SARS-CoV-2 infection risk assessment on the basis of socio-demographic variables, the field of medical studies and variables related to the way of one’s functioning during the epidemic. For this purpose, a stepwise regression analysis was performed, and final models were reported.

The second analysis predicted an increased need for social support in connection with the SARS-CoV-2 epidemic (where the chance for an increased need for social support was interpreted in relation to the lack of such need) on the basis of socio-demographic variables, the field of medical studies and variables related to the way of one’s functioning during the epidemic. For this purpose, a logistic regression analysis was performed using the Wald progressive selection method.

The most numerous group was composed of students of medicine; therefore, it was decided to treat them as a reference group for other fields of study in statistical analyses.

Table 1. Descriptive statistics for the group of students (N = 981) in an online survey during the first stage of the SARS-CoV-2 pandemic in Poland, March–April 2020

Variable	M	Me	SD	Min.	Max
Age [years]	23.23	22.00	4.67	19.00	59.00
Overall health self-assessment [pts]	4.17	4.00	0.77	1.00	5.00
Experienced symptoms of viral infection [n]	1.30	1.00	1.40	0.00	9.00
Assessment of the chance of receiving medical assistance in the event of getting infected with COVID-19 [pts]	2.94	3.00	1.01	1.00	5.00
Stress self-assessment during the epidemic [pts]	3.42	4.00	1.05	1.00	5.00
Assessment of the risk of relatives getting infected [pts]	2.97	3.00	0.76	1.00	5.00
Subjective SARS-CoV-2 infection risk assessment [pts]	7.68	8.00	2.60	3.00	15.00

Table 2. Regression factors for predicting the subjective SARS-CoV-2 infection risk assessment in the group of students (N = 981) in an online survey during the first stage of the SARS-CoV-2 pandemic in Poland, March–April 2020

Variable	B	SE	β	p
Constant	0.50	0.67		0.460
Assessment of the risk of relatives getting infected	0.94	0.10	0.28	<0.001
Subjective stress assessment	0.63	0.07	0.26	<0.001
Age	0.09	0.02	0.15	<0.001
Professional activity in the past 14 days (1 – no, 2 – yes)	0.90	0.18	0.14	<0.001
Sum of symptoms of viral infection	0.18	0.05	0.10	<0.001
Subjective health assessment	–0.28	0.09	–0.08	0.003
Field of study: other fields of study (ref. medicine)	–0.42	0.15	–0.07	0.007

Dependent variable: SARS-CoV-2 infection risk assessment.

RESULTS

The mean index of the subjective infection risk assessment in this study was 7.68 and standard deviation (SD) was 2.60 (min. 3; max 15). Detailed descriptive statistics of variables are presented in Table 1. The model for the subjective SARS-CoV-2 infection risk assessment as a dependent variable proved to be well adjusted to the data ($F(7.945) = 66.61$, $p < 0.001$); explaining 32.6% of the dependent variable variance (adjusted $R^2 = 0.326$). Out of 19 variables, 7 turned out to be statistically significant, for which the values of standardized β coefficients are presented in Table 2.

The results of the analysis indicate that the higher the respondents assessed their risk of SARS-CoV-2 infection,

the higher they assessed the risk of their relatives getting infected ($\beta = 0.28$) and their level of stress ($\beta = 0.26$). The risk of infection also increased with age ($\beta = 0.15$), with an increase in the number of experienced symptoms of viral infection ($\beta = 0.10$), and with a decrease in the subjective assessment of one's own health ($\beta = -0.08$). The infection risk was also assessed as higher by those who had been working in the past 14 days. On the other hand, students of other faculties were less afraid of the infection ($\beta = 0.14$) as compared to students of medicine ($\beta = -0.07$).

The increased need for social support in the past 14 days was declared by 359 (36.6%) people, while only 10 people

Table 3. A model predicting the need for social support in the group of students (N = 981) in an online survey during the first stage of the SARS-CoV-2 pandemic in Poland, March-April 2020

Variable	B	SE	Wald	df	p	Exp(B)
Sex (1 – women)	0.48	0.24	4.07	1	0.044	1.62
Sum of symptoms of viral infection	0.18	0.05	11.43	1	0.001	1.20
Assessment of the chance of receiving medical assistance in the event of getting infected with COVID-19	–0.18	0.08	5.36	1	0.021	0.84
Stress assessment during the epidemic	0.90	0.09	100.98	1	<0.001	2.46
Field of study			10.44	3	0.015	
1 – dentistry (ref. medicine)	–0.93	0.31	8.88	1	0.003	0.39
2 – nursing, midwifery, medical rescue, pharmacy (ref. medicine)	0.04	0.20	0.04	1	0.850	1.04
3 – others (ref. medicine)	–0.20	0.19	1.08	1	0.299	0.82
Degree of adherence to recommendations for reducing the risk of SARS-CoV-2 transmission	0.03	0.01	7.20	1	0.007	1.04
Constant	–5.70	0.78	53.34	1	<0.001	0.00

Bolded are statistically significant values.

declared to use psychological support in connection with the COVID-19 pandemic. In the context of evaluating the apparent support, 31.2% considered it insufficient. The authors tested the model for an increased need for social support in connection with the COVID-19 epidemic as a dependent variable. The analysis showed that the tested model is well adjusted to the data, as shown by the statistically insignificant Hosmer-Lemesh test ($\chi^2(8) = 12.17$, $p = 0.144$). Nagelkerke's R^2 value of 0.274 indicates that the developed model explains 27.4% of the instances of the increased need for social support (Table 3).

From among the established predictors, the subjective assessment of stress during the epidemic proved to have the greatest impact on the increased need for support. The value of the odds ratio indicates that, with an increase in stress by 1 unit, the chance of an increased need for support increases by 146% (OR = 2.46). Relatively strong predictors are also sex and the field of study. Women were 62% more likely to feel an increased need for social support than men (OR = 1.62), while those studying dentistry were 61% less likely to feel an increased need

for support than those studying medicine (OR = 0.39). In addition, the need for social support was found to increase with the number of experienced symptoms of viral infections (OR = 1.20) and the degree of adherence to recommendations for reducing the risk of SARS-CoV-2 transmission (OR = 1.04). In contrast, it decreased with an increase in the assessment of the chance of receiving medical assistance in the event of getting infected with COVID-19 (OR = 0.84).

DISCUSSION

Due to the lack of related literature, the authors compared the results of the present study with previous ones about MERS-CoV.

The first stage of the pandemic in Poland, as in other countries, was a period of great disinformation concerning the recommendations and prevention of SARS-CoV-2 infection. Experts published a lot of information with different degrees of certainty and reliability, partly contradictory, which were then quickly dismissed and replaced by other information. At the time of the survey, govern-

ment restrictions were gradually introduced: mass events were cancelled, schools, kindergartens and colleges were closed, and borders were also closed, which could have affected the sense of security and personal freedom and, for many people, required immediate adaptation to new conditions [14]. At that time, there was no antiviral treatment confirmed against COVID-19 [4].

In the context of an epidemic, medical students are not a typical group of students, as it is reasonable to expect them to have more general knowledge related to the transmission of different types of infections. They are also expected to be more interested in scientifically verified information and to have wide access to such information [15]. In the studies conducted in the first stage of the COVID-19 epidemic in Iran, a high level of knowledge about COVID-19, regarding infection routes, diagnosis and symptoms, was noted among medical students. On average, students responded at 87% of normal responses [16]. Greater knowledge might be expected to translate not only into adherence to prophylactic recommendations but also into factors important for the subjective SARS-CoV-2 infection risk assessment.

People in crisis situations may find it difficult to seek social support, or even to identify precisely what kind of support they need. This also applies to students who, in this situation, may prioritize meeting the requirements of their studies [17,18]. In the present study, only 10 people declared to use psychological support in connection with the COVID-19 pandemic. At the same time, 36.6% of the respondents confirmed an increased need for social support during this particular period. Therefore, the authors' intention was, first and foremost, to identify the predictors that could be treated as indirect indicators of the need for social support. Such a strategy makes it possible to select a group of people among students who should be given more attention or should be directly offered psychological support. The studies conducted in 2003 by Chan and Huak [19] showed that doctors and

nurses who received support during the SARS epidemic experienced fewer psychiatric symptoms (the *General Health Questionnaire* [GHQ], a score of <5) and were less traumatized (a low score on the *Impact of Events Scale*) than those healthcare professionals who did not receive such support (GHQ, a score of >5).

This study revealed that information which is relatively easy to collect can provide knowledge about the factors that determine a greater need for social support during a pandemic. The subjective assessment of the prevalence of stress in connection with the SARS-CoV-2 pandemic proved to be the strongest predictor. The result is consistent with most of the studies carried out so far, both in relation to epidemics [20], and other crisis situations [21]. A higher level of stress, regardless of the external factors causing it, is associated with a greater need for social support. In the authors' view, an advantage of the study is the simplicity of the subjective assessment of stress with only 1 question. Of course, the authors are aware that complex and specific psychological tools can have better psychometric values. In the situation of such a widespread crisis as the SARS-CoV-2 pandemic, it is worth using innovative research tools, but adequate to this situation, even if they do not have the reliability previously confirmed by other authors.

It is important and sometimes crucial to get help and support, and to minimize the burden (additional stress) associated with the study [22,23].

As in Duncan's study [17], female sex was a predisposing factor for a greater demand for social support. At the same time, women use social support as a strategy for dealing with stress more often than men [24].

It was also shown that studying dentistry, in comparison to medicine (the largest group of students in the study), reduces the need for social support. It can be assumed that students of medicine were subject to an additional stress factor of being forced to work during the pandemic, which may explain why they need more social support

than students of dentistry [25]. However, due to the lack of research on this topic, this hypothesis should be approached with great caution.

In the context of estimating the need for support, sex and the field of study are important variables that are directly available. They are valuable because they are easy to identify and do not require additional commitment from the respondents.

The need for support was found to increase for those who had indicated a greater number of symptoms of viral infections experienced in the past two weeks and those who had predicted that they would have lower chances of receiving adequate medical assistance if they became ill. Given that the symptoms of COVID-19 may be similar to those of other viral infections, it can be presumed that among these individuals there may have been those who suspected the development of COVID-19 on the basis of objective indicators [26].

Those who adhered more closely to the pandemic recommendations were also found to have an increased need for support. Adherence to the recommendations and estimation of an individual risk of SARS-CoV-2 infection were positively correlated ($r = 0.11$, $p = 0.001$), but no cause and effect relationship was noted between them. This result is difficult to interpret at this stage of the study. Earlier studies also did not provide a clear answer as to the direction of the link between preventive behavior and the risk of infection.

In contrast to the conclusions from these results, the study conducted by Taghrir et al. [16] with surprising results (negative correlation) was justified by the authors with medical students' knowledge about the consequences of preventive behavior during the COVID-19 pandemic. On the other hand, studies on the impact of the influenza pandemic indicate that the level of anxiety increases with the level of preventive behavior [27]. Given the above, it is likely that other factors, not necessarily related to the epidemic situation, may play a mediating role between the variables mentioned

above. Therefore, the authors are planning to include more variables in their further studies and analyses.

The subjective infection risk assessment in the self-assessment survey in question can be described as moderate. The result is similar to that achieved in the study on anxiety towards the risk of transmitting MERS-CoV among health-care workers [28] and the study related to the subjective risk perception of COVID-19 among Iranian medical students [16,28]. As in the assessment of an increased need for social support, the subjective assessment of the stress level was the most important predictor in relation to the subjective SARS-CoV-2 infection risk assessment. Moreover, a similar range of variability is explained by the assessment of the risk of relatives getting infected. High levels of stress are most often associated with increased anxiety and may change the perception of the risk of experiencing various negative events, including infection and illness [29]. As can be seen in this study, this was a factor independent of objective variables, such as chronic diseases, which could influence the infection risk assessment.

The risk assessment of relatives becoming seriously ill in the case of a potential SARS-CoV-2 infection turned out to be very important for an individual's infection risk assessment. A similar risk assessment mechanism associated with anxiety towards MERS-CoV was revealed in the Alsuba and Tamsah study [28]. A higher level of anxiety, associated with concerns about the transmission of the virus to family members, was found among health-care workers other than physicians.

It is worth noting that the infection risk assessment also includes an assessment of virus transmission. In addition, the study was dominated by young adults ($M \pm SD$ 23.22 ± 4.69), so it may be suspected that concerns for the health of the loved ones significantly influenced the overall infection risk assessment ("If I become infected, I will expose my relatives").

In the respondents' subjective assessment, the risk of infection increased with age. This result is difficult to compare

with other studies, as it is not possible to identify and categorize age groups in this study as, for example, in the study conducted by Bruine de Bruin [30] on age-related differences in risk perception and mental health related to COVID-19. This study showed that older adults were associated with perceiving a higher risk of dying from COVID-19, but a lower risk of getting infected with SARS-CoV-2.

A probable explanation for these results may be the fact that young adults develop intensively, especially with regard to metacognitive and executive functions, including behavioral control. This increases their awareness, the ability to anticipate the future, criticism, emotional maturity and responsibility for themselves and for their loved ones. Moreover, the information made available to the public stated that the risk of severe COVID-19 illness increased with age. Although, objectively speaking, the respondents were not in an age-related risk group, as the risk concerned people >60 years of age, a lot of attention-grabbing and shocking information about individual cases of severe illness or even deaths among much younger people appeared in the media at the same time. Professional activity in the past 14 days increased the risk perceived by the respondents. It is worth noting that at that time in Poland there were no restrictions related to contact with other people at work, so the risk of getting ill was really high. Students of other faculties (group D) assessed their risk of getting infected as lower, which is understandable when we take into account the nature of these faculties, e.g., medical analytics, dietetics, biotechnology, neurobiology, and public health. Even if these people work, they come into contact with fewer infected people (internship, work) than students of medicine or nursing, midwifery or medical rescue, who have practical classes involving a lot of contact with patients [16,26].

The study identified some important factors related to the increased need for social support and a high sense of risk of getting infected with COVID-19. It also showed that information which is relatively easy to collect

(e.g., sex, field of study, age, professional activity, subjective health assessment) can provide valuable information indicating the validity of extending the interview, as to the need or implementation of an adequate kind of social support during a pandemic or a high sense of threat of contracting the infection, without the need to use specialized tools, and not requiring disclosure of deep psychological experiences (exposure) or building a specific support relationship.

Taking into account the specificity of the surveyed group, the authors expected a greater significance of objective variables, such as the number of experienced symptoms of infection, in individual risk assessments. These proved to be significant, but stress assessment played a much greater role. The answer to a relatively simple question, namely: "Try to assess how stressful the coronavirus epidemic is for you," can provide information about how much support a person needs and whether their sense of threat is increasing.

This study exhibits certain limitations. A significant prevalence of women in the surveyed group can be considered one of these. However, it is worth emphasizing that the obtained sex ratio reflects the distribution of students at the university in question and, in general, sex disparities among those studying in Poland. Moreover, the respondents were not asked about natural sources of support (e.g., whether the student is staying at home or in a dormitory/lodging), which could have a significant impact on the need for social support. The next limitation is that full-time and part-time students were surveyed together, which could differentiate the respondents in terms of variables relevant to the results of the study (e.g., one's family situation and the level of responsibility for others may influence the need for support). The answers were also not analyzed depending on the year of study; the respondents were only asked about their age, which did not allow the authors to determine the differences in the examined variables between specific years of study.

Subsequent studies will characterize aspects of psychological functioning of medical students and differences in attitudes towards the pandemic of medical and non-medical students. The authors would like to determine a more precise significance of the answer to a simple question about the level of stress and other easily accessible variables (which do not require the use of psychological tools) for analyzing complex psychological and social processes in the course of a pandemic. It is necessary to address the relationship between adherence to prophylactic recommendations and the infection risk assessment. This relationship determines the right decisions on actions to reduce excessive anxiety and to strengthen prophylactic actions in a way that does not stimulate dangerous phenomena, e.g., reducing anxiety by undertaking compulsive prophylactic actions.

CONCLUSIONS

1. Subjective SARS-CoV-2 infection risk assessment in the group of medical students is influenced by: estimating the risk of relatives getting infected, stress level, age, experienced symptoms of infection, subjective health assessment, professional activity, and field of study.
2. An increased need for social support in connection with the SARS-CoV-2 epidemic in medical students is related to: stress level, sex, field of study, experienced symptoms of infection, adherence to recommendations, and estimated chances of receiving medical assistance in the case of getting infected with COVID-19.
3. In the first stage of the epidemic, social support should be given primarily to medical students who experience higher levels of stress and more infection symptoms.
4. Relatively easily accessible demographic data, such as sex and field of study, as well as answers to the question of the perceived level of stress, can provide valuable information on the potential need for social support and the sense of threat of SARS-CoV-2 infection.

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