

Challenges and difficulties students face during COVID-19 pandemic. Insights from the survey among students of Medical Faculty of Jagiellonian University in Cracow – qualitative data presentation

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Abstract

The aim of the study. Pandemic outbreak of Coronavirus Disease 2019 (COVID-19) had significant impact on medical education across Europe. Due to the lockdown-type control measures Universities were forced to adapt to new conditions by unexpectedly switching to on-line teaching. The aim of the study was to explore medical students' needs, problems, expectations, views on positive aspects of current situation, and attitudes toward on-line teaching, and academic administration during early stages of lock-down.

Material and methods. Investigators created an online survey which received 289 students responses. Survey contained quantitative and qualitative questions. Qualitative data was analyzed using Consensual Qualitative Research (CQR) methodology.

Results. 20.76% participants responded they needed assistance or help, 49.83% of students reported that situation worsened their studying conditions, 57.79% requested more interest from University administration in current situation, 5% of the students reported being deprived of social support. Following categories has been extracted from qualitative data: struggles students face during pandemic, worries and concerns students report, positive aspects of current situation, students' hopes and expectancies, on-line classes opinions. Frequencies of most common answers within abovementioned categories were calculated.

Conclusions. To our best knowledge this is the first study presenting complex quantitative and qualitative evaluation of medical students' situation during COVID-19 pandemic outbreak. According to the acquired data, students faced an anxiety and stress provoking situation that required undertaking special measures. This data is useful in gaining insight into students' experiences of pandemic and may help as a guidance for planning intervention.

covid-19; medical students; qualitative analysis

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INTRODUCTION

At the end of 2019, a severe acute respiratory syndrome coronavirus (SARS-CoV-2) became a significant health problem in the People's Republic of China and then around the world, including Poland. The syndrome of clinical symp-

toms it induced was called Coronavirus Disease 2019 (COVID-19). On March 11 of 2020, the World Health Organization assessed the prevalence of COVID-19 as a pandemic [1]. The first confirmed case of patient with SARS-CoV-2 in Poland was announced on 4 March. On 10-12 March lockdown-type control measures started, which resulted in closing of schools and university classes and the Polish Ministry of Science and Higher Education recommended transition toward on-line teaching to avoid spreading of SARS-CoV-2. Jagiellonian University Medical College in Cracow suspended teaching activities in the period from 11 to 25 March and was then forced to adapt to new conditions by unexpectedly switching to on-line teaching mode.

This situation had a significant impact on lives of students by changing the conditions of their education, work, social relationships and socio-economical status. Early reports confirmed that lockdown and quarantine affect students' mental health by significant increase of anxiety and depressive symptoms, suicidal thoughts, and decrease of quality of life. This indicates that university students present a vulnerable population that are in need for specific interventions concerning their mental health issues [2-7].

In Jagiellonian University Medical College the research team was formed out of need of helping students with their struggles during first weeks of coronavirus spread. Group met several times to discuss the course of action and came up with the idea of creating an on-line survey. Survey was meant to serve at least three purposes. Firstly, the idea was to reach out to students of medical faculty and find out what were their needs and whether they needed any help or assistance. Secondly, gathering the data on students' situation during pandemic was seen as a good opportunity to look at it as feedback for academic administration. Spread of coronavirus provoked a lot of anxiety and uncertainty that resulted in hesitance and indecision on part of the University. Finding out more about what were students' expectations was helpful for decision-makers and provided them with anonymous, uncensored feedback. Thirdly, gathered data deserved thorough analysis and scientific processing. Authors of the survey added some open-ended questions that expanded the scope of inquiry to contain not only the current per-

sonal and academic situation of students, but also their spontaneous reflections, their dreams, and expectations and also their view on positive aspects of current, extraordinary situation.

Previous studies were aimed at evaluating and commenting the condition of medical education during pandemic [8-12], students' [2-7] and health professionals mental health [13-15], behaviors and knowledge about COVID-19 [16]. To our best knowledge this is the first study presenting complex quantitative and qualitative evaluation of medical students' situation during COVID-19 pandemic in Poland and their attitudes towards on-line teaching, academic administration, their personal situation, and reflections during that time.

METHOD

Consensual Qualitative Research

Data was analyzed using Consensual Qualitative Research (CQR) [17] in its modified version (CQR-M). CQR utilizes inductive approach (bottom-up) to study data and allows to gain insight into the studied phenomena without imposing any theoretical construct. It's especially adequate to study data regarding internal experiences, attitudes and beliefs. According to the authors of this method it was designed to incorporate and integrate the best features of the three existing approaches to qualitative research in psychology and psychotherapy – grounded theory [18], phenomenological approaches [19], and comprehensive process analysis [20]. Its value lies in its ability to describe new and unexpected facets of studied data. At the same time, it requires lots of resources to apply, since there's a need to involve at least couple of researchers and thoroughly investigate the qualitative data. The main aim of this method is to classify and categorize the data while achieving consensus among the research team. It requires several intermediate steps along the way with continuous reconceptualization of devised categories until the result reflects the raw data as closely as possible and all the team members are satisfied with their work.

Decision to utilize CQR-M methodology was made based on the characteristics of qualitative

data that consisted of answers that were short (sometimes consisting of just one word) or elaborate (consisting of several sentences).

Researchers

There were three people involved in conducting the survey, collecting, and analyzing the data. Team consisted of (1) female professor of psychology, clinical psychologist, psychotherapist, and psychotherapy supervisor with extensive experience in conducting studies on qualitative data, (2) male child and adolescent psychiatrist, psychotherapist with academic background, and (3) male psychiatrist and neurobiologist with PhD and experience in conducting quantitative research.

Measure

Having three aforementioned goals in mind researchers started with survey construction, a process that mostly relied on researchers' personal and professional experiences. Having some insight from working with people that were deeply affected by the epidemic, being involved in migrating to on-line teaching, adjusting to the epidemic from the academic point of view and being mental health professionals were surely helpful. Three types of questions were used in the survey: (1) single answer multiple choice, (2) multiple answer multiple choice and (3) open-ended questions. Multiple choice questions were mostly aimed at getting a general picture of what's the situation among students (e.g. needs, insecurities, troubles). By asking open-ended questions researchers wanted to invite students to share their deeper reflections on current situation. On one hand research team tried not to make any assumptions on what these reflections might be, but on the other hand, since questions needed to be explicitly formulated, some assumptions or orientations needed to be made. Before we started collecting the data we went through all of the questions and discussed our expectations of participants answers, which helped with some final rewording and reformulations. The final measure used in the survey is presented in Figure 1.

Dear Sir or Madam,

The pandemic we're experiencing has completely changed the conditions of our studying, working and social relationships. We are becoming more and more aware, that a break from classes at the university and experimenting with remote teaching, will be a significant episode in the current university routine. This raises the question of how this time will affect the university, our education, and more broadly, the society we live in. It is a question about the role of us all in this complex process.

The university is not only a place where we pass our courses, but also a community where social sensitivity and responsibility are formed. We would like to know how you feel in current situation. Maybe you are missing something or you found yourself in a difficult situation. Maybe together we will be able to help somehow?

We enclose the questionnaire, we encourage you to fill it.

1. How are you dealing with pandemic and its limitations? (single answer multiple choice question)
 - a. Very good
 - b. Good
 - c. Neither good, nor bad
 - d. Bad
 - e. Very Bad
2. Do you need any assistance or help? (single answer multiple choice question)
 - a. Yes
 - b. No
3. What kind of help or assistance you need? (open ended question)
4. Are there any people close to you that you can talk to and get support from? (single answer multiple choice question)
 - a. Yes
 - b. No
5. How has the current situation limited your opportunities to study? (multiple answer multiple choice question with "other" answer option)
 - a. It hasn't
 - b. It has worsened my financial situation
 - c. It has worsened my housing situation
 - d. It has worsened my studying conditions
 - e. It has hindered my access to Internet
 - f. Other

6. How do you find yourself in the situation of on-line classes? (open-ended question)
7. Who do you expect to be more interested in students' affairs in current situation? (multiple answer multiple choice question with "other" answer option)
 - a. I don't expect more interest
 - b. University administration
 - c. Lecturers and assistants
 - d. Student council
 - e. Other
8. Does the current situation raise your anxiety, if so, what does it concern? (open-ended question)
9. Would you like to share any reflections on the situation we're in now? (open-ended question)
10. Please imagine that the world after the epidemic can be better and we have the opportunity to rebuild our relationships and social spaces. What would your dreams and expectations be? (open-ended question)
11. Is there anything positive that you perceive at this time? (open-ended question)

Figure 1. The survey

PROCEDURE

Recruitment of participants. Anonymous survey was posted on-line and link to it was attached to the newsletter that was sent to students of medical faculty by university administration. According to the official university register there were 1971 active students at the time of sending the newsletter. Online survey service was not collecting any data that could allow tracking back the identity of the respondent. Demographic questions explored participants' sex, year of studies [1-6), attended programme (medicine, medicine and dentistry, human nutrition) and whether students live in the academic city and its vicinity or not. None of the questions of the survey were compulsory. Answers were gathered during the period from May 15, 2020 to May 27, 2020.

Participants. Answers were submitted by 289 respondents (overall response rate was 14,66%). Since it wasn't compulsory to answer all of the questions, some responses are partial or do not contain qualitative data. Demographic characteristics are presented in Table 1.

Table 1. Participants demographics

	No. of students (%)
Sex	
Female	185 (64.01%)
Male	103 (35.64%)
No data	1 (0.35%)
Year of studies	
1 st	56 (19.38%)
2 nd	47 (16.26%)
3 rd	35 (12.11%)
4 th	26 (9%)
5 th	29 (10.03%)
6 th	91 (31.49%)
No data	5 (1.73%)
Attended programme	
Medicine	228 (78.89%)
Medicine and dentistry	40 (13.84%)
Human nutrition	19 (6.57%)
No data	2 (0.69%)
Place of residence	
Cracow and its vicinity	135 (46.71%)
Other	152 (52.6%)
No data	2 (0.69%)

CQR-M process. The process of analysis was consistent with recommendations of Spangler et al. [21]. Following procedure was applied. After creation of an online database with qualitative data to work on, team planned weekly 120-minute on-line meetings that served discussion and consensual process of developing list of domains and categories. In the meantime, members of the research team worked independently – familiarizing themselves with data, creating and improving the list of domains and categories and making preliminary coding. That work was then discussed and shared with the rest of the team during weekly meetings and consensual decisions on what should be the next steps were taken. During the process of reaching consensus, the ideas what domains and categories should be used and how to code the data changed from meeting to meeting, reflecting complexity and team's growing understanding of the data. When the final list of categories was agreed upon – the final coding was carried out.

RESULTS

Quantitative data

There were three single answer multiple choice questions and two multiple answer multiple choice questions used in the survey. The latter also allowed respondents to further elaborate

and write their formulations as “other”. These formulations were regarded as qualitative data and were included in analysis of qualitative data. We decided to present quantitative data as plain values, without performing further statistics on it, since plain data presentation is enough to serve research exploratory purpose (see Table 2.)

Table 2. Quantitative data

	no. of students (%)
How are you dealing with pandemic and its limitations?	
<i>Very good</i>	46 (15.92%)
<i>Good</i>	110 (38.06%)
<i>Neither good, nor bad</i>	75 (25.95%)
<i>Bad</i>	45 (15.57%)
<i>Very bad</i>	13 (4.5%)
Do you need any assistance or help?	
<i>Yes</i>	60 (20.76%)
<i>No</i>	227 (78.55%)
<i>No data</i>	2 (0.69%)
Are there any people close to you that you can talk to and get support from?	
<i>Yes</i>	275 (95.16 %)
<i>No</i>	13 (4.5%)
<i>No data</i>	1 (0.35%)
How has the current situation limited your opportunities to study?	
<i>It hasn't</i>	93 (32.18%)
<i>It has worsened my financial situation</i>	63 (21.8%)
<i>It has worsened my housing situation</i>	30 (10.38%)
<i>It has worsened my studying conditions</i>	144 (49.83%)
<i>It has hindered my access to Internet</i>	32 (11.07%)
<i>Other</i>	43 (14.88%)
<i>No data</i>	1 (0.35%)
Who do you expect to be more interested in students' affairs in current situation?	
<i>I don't expect more interest</i>	72 (24.91%)
<i>University administration</i>	167 (57.79%)
<i>Lecturers and assistants</i>	114 (39.45%)
<i>Student council</i>	72 (24.91%)
<i>Other</i>	22 (7.61%)
<i>No data</i>	3 (1.04%)

QUALITATIVE DATA

There were six open ended questions used in the survey and two multiple answer multiple choice questions that allowed respondents to reply with qualitative answer. Since it wasn't com-

pulsory to reply to any of the questions, each of them gathered varied numbers of answers (as shown in the Table 3). Altogether there was 1241 qualitative statements.

Table 3. Qualitative data

	no. of answers
What kind of help or assistance you need?	62
How has the current situation limited your opportunities to study? ("other")	43
How do you find yourself in the situation of on-line classes?	270
Who do you expect to be more interested in student's affairs in current situation? ("other")	22
Does the current situation raise your anxiety, if so, what does it concern?	244
Would you like to share any reflections on the situation we're in now?	172
Please imagine that the world after the epidemic can be better and we have the opportunity to rebuild our relationships and social spaces. What would your dreams and expectations be?	196
Is there anything positive that you perceive at this time?	232

We provide the complete list of categories and frequencies in Table 4. Since the data was complex we decided to elaborate only on the most prominent and common categories. Whenever

we cite participants' responses – we try to provide the most accurate translation from polish with grammar and spelling left intact.

Table 4. Domains and categories of qualitative data.

	no. of students (%)
Struggles students face during pandemic	
organisational chaos on the university	123 (42.56%)
too much classes after classes being suspended	39 (13.49%)
frequent changes and late decision making	42 (14.53%)
lack of organisational information or uncertainty	94 (32.53%)
loosing learning opportunities	19 (6.57%)
life adjustments (e.g. moving out)	8 (2.77%)
psychological/psychiatric complaints	30 (10.38%)
financial/material troubles	7 (2.42%)
Worries and concerns students report	
health concerns	49 (16.96%)
own health	19 (6.57%)
close one's health	21 (7.27%)
scared of having clinical classes	18 (6.23%)
educational future	76 (26.30%)
inability to pass exams/graduate	45 (15.57%)
uncertainty about summer internship	16 (5.54%)
uncertainty about future academic life	20 (6.92%)

occupational future	10 (3.46%)
financial future	9 (3.11%)
future in general	7 (2.42%)
explicitly denying any worries	21 (7.27%)
Positive aspects of current situation	
improved close relationships	52 (17.99%)
having more time	80 (27.68%)
positive social changes	6 (2.08%)
improved natural environment	8 (2.77%)
technological advances	27 (9.34%)
improved hygiene in society	5 (1.73%)
nothing positive	17 (5.88%)
Students hopes and expectancies	
ability to meet others offline	10 (3.46%)
social wellbeing	35 (12.11%)
more appreciation for medical personnel	15 (5.19%)
improved epidemiological awareness in society	21 (7.27%)
more care for the natural environment	9 (3.11%)
On-line classes opinions	
positive	177 (61.25%)
time efficient	22 (7.61%)
effective	11 (3.81%)
convenient	15 (5.19%)
should be permanently introduced	58 (20.07%)
praise	24 (8.30%)
with no further explanation	108 (37.37%)
negative	64 (22.15%)
technical issues	8 (2.77%)
no live contact	11 (3.81%)
struggles with concentration/motivation	19 (6.57%)
not possible to learn practical aspects	25 (8.65%)
with no further explanation	11 (3.81%)

Students' struggles during pandemic

The overwhelming majority of comments that reflected students' struggles and troubles regarded academic life. Most often (n=127) students were commenting (and it wasn't uncommon to find critical, sometimes even offensive formulations) lack of clear information and organizational instability. They mostly pointed at slow decision making process, at fre-

quent changes in schedules, last minute decisions on postponing exams or changing their forms (from live to an on-line and reverse). Students were also complaining about lack of appropriate and timely decisions which resulted in uncertainty and caused a lot of anxiety. Part of the chaos was, that after the time when all the classes were put on hold, students were required to catch up with some classes, which resulted in students reporting being overloaded

with work and spending too much time in front of the computer.

Lack of information from the university about the future ahead of us and the upcoming exams is very stressful, and it often causes sadness / crying / nervousness and resignation (#79).

Students also pointed at how organizational shifts deprived them of practical learning opportunities. They no longer were able to attend clinical classes in hospital, nor were they able to talk to patients or be involved in clinical routine (n=19).

I feel that I suffer huge loss (5th year, medicine) due to the lack of classes in the ward. It made us all realize how important these classes are. Earlier, people often complained about "supporting walls in clinics". Now we know that even passive observation of the life of the ward can give you a huge value that is now missing. We will be doctors a year from now, I believe that we are losing valuable hours in the ward. It stresses me and worries me (#133).

Some of the students (n=8) also needed to make some personal adjustments that involved for example translocating, terminating apartment's lease, leaving the dormitory or on the contrary, staying in Cracow despite the pandemic. These decisions were being made by students without full clarity on what's coming next.

Unfortunately, we do not yet know in what form our exams will be held. We were sure that they would be online, so I moved out of the dormitory and currently live in my family home. At the moment, I do not know if this form of exam will be maintained and it causes me a lot of anxiety and stress. Personally, I strictly follow social distancing rules and I am terrified by the fact of returning to Cracow and meeting potentially infectious clinical teachers, only to write an exam in the hospital's lecture hall. In my case, it involves a long and costly journey, finding an accommodation, and high level of exposure. After taking the exams, I don't know how I could return to my family home without 14-day quarantine and how could I expose my elderly par-

ents to the disease. Therefore, I am concerned about this situation (#79).

Students were also admitting to either need of psychological/psychiatric care or were describing psychological distress they were under (n=30).

I am undergoing treatment for depression and due to an epidemic, I had to stop psychotherapy because I do not have conditions at home for Skype therapy. I stayed on antidepressants alone and the psychiatrist contacts me by phone once in a while. The current situation makes me decompensate relatively often, and the fear of what will happen, and the general chaos contribute a lot to it – e.g., postponing the emergency medicine exam two days before the originally scheduled date and the prospect of returning to classes (#169).

Students' worries and concerns

Causes of distress were diverse – e.g., insecurity and health concerns, unpredictability and instability, loneliness, work overload and academic chaos. Most frequently students were pointing at worrying about the future with academic (n=76) or professional future (n=10) being the main concern.

I am afraid that I will not be able to handle my job, which I will start in a few months, emotionally and content wise. I do not feel well prepared in terms of content, because the classes are of lower quality, we have less time to study for the exams, we do not know when they will take place, what form they will be, it is not conducive to effective learning. Expectations towards us in terms of substantive preparation and coping skills are the same or greater, and our ability to study – has lessened. I am also concerned about the prospect of starting work in the current health care situation, even though that I am rather willing to act and I am not escaping from responsibility (for example, I participated in volunteering during a pandemic) (#99).

When it comes to academic future students quite often reported being afraid of not passing

the upcoming exams, not being able to study and as a result – not passing a year or graduating (n=45). The source of worry was also a prospect of having technical issues during an on-line exam, that would result in failure. Worries also regarded academic future – will there be any problems with summer internship, how will the next academic year look like, will it be possible to have clinical classes in the future, but also what are students' occupational prospects.

I am currently concerned about the exams. Online exams have various technical problems that may prevent you from taking or passing them (#70).

Remote exams – very often students are disconnected from the Internet for reasons beyond their control – what if this happens during the exam? (#79)

I am concerned about the current situation, especially in terms of returning to classes – when will it be possible and what will it be like, and what about the summer internship. Not being able to attend classes at the hospital also raises my concern about not acquiring practical skills (#230).

I am afraid that in the next academic year most of the classes will be remote, which I am not a supporter of. I am also concerned that more and more people will become addicted to the Internet, will find it difficult to establish healthy relationships in the future, may fall into depression and other mental problems (#249).

Students also shared their concerns about health hazards at the university (n=49). Students were afraid of being infected in all sorts of situations – commuting, attending classes, having exams (tests, oral) in hospital buildings, having contact with patients, meeting other students. Concerns were not only on students' health and risk of infection, but also on possibility of infecting family members, especially parents or grandparents who were at risk of having severe course of infection.

My greatest concern is the possible return to hospital with patients suffering from covid-19. I am afraid there won't be enough personal protective equipment. I conclude that in the conditions of an epidemic I will be exposed to in-

fection. I am not worried about my own health, but a parent who suffers from sarcoidosis. I don't want to go through a situation when my family member is in the ICU (#175).

There were also good things about being locked-down

Pandemic times are not only anxiety and discomfort provoking, but also times when some positive aspects of reality come to view. There were several different positive sides that students pointed at. The most valued change was having more spare time (n=80). It was spent with family or spouses which resulted in improvement in family relationships (n=52). It was also used for self-development (reading books, exercising, hobbies or for some students – more studying), resting and relaxing (being able to sleep more, or in other words, no longer depriving oneself from sleep) and help to appreciate things that were omitted or unnoticed.

Of course, I have more time for myself. During the pandemic, I had the opportunity to catch up on reading my favorite books, take care of my home and myself. I can devote much more time to physical activity in the comfort of my home (#29). We got a break from everyday matters related to life at the university. We could take a step back and build up the desire to return in full strength and mobilization. At the beginning of the quarantine, we had a greater opportunity to spend time on our passions. There was time to catch up on many arrears in the private and academic life. We also had time for a "psychological break" from the university (#100).

I myself have a lot of time to develop my passions and to do things for which I did not have time before, I am learning a new language, I will probably get an online job that I will be able to continue when we return to classes, I am working on establishing my first economic activity. I also have more time for my girlfriend, which basically saved our relationship (#114).

Online classes that were forced by the circumstances also made student realize how much time they spent on commuting or waiting for classes to begin. Remote learning gave them an ability to have more control over their daily routine.

This prevents many hours of waiting times between classes at the university (#42).

Thanks to online classes, I save time and energy that I would spend on commuting and I can spend it on my own development / adequate amount of sleep / studying by myself (#206).

I like the online classes (...) I do not have to waste time on commuting, I can eat or drink coffee in the meantime, which gives me better physical comfort and I participate more willingly and actively in the classes. (#287).

Regarded as positive was also (n=27) rapid advancement in technology that was forced by the epidemic (videoconferencing, telehealth), improved condition of natural environment and improved level of hygiene in society.

There's also hope and future prospects

Students asked about their dreams and expectations mostly pointed at improved social well-being (n=35). They emphasized the importance of social solidarity, mutual understanding, kindness and goodwill.

So that we care more about the environment, help each other (and all those in need) every day as much as during this epidemic. I would like us to slow down a bit, so that we can devote our time to relationships, to taking care of our physical and mental health (which, for example, is quite difficult while studying medicine) (#81).

My dream would be for a society that is more civic, democratic and that works for the general good. However, I am concerned about the direction in which the political/ideological attitudes are heading. Democracy is dying and with-it extreme nationalism, racism, and homophobia are growing with the consent

of the authorities and their propaganda (#122).

For this country to become more tolerant and people to show more understanding (for example, this year this country was ranked last in the European Union on the ILGA ranking on the rights and safety of LGBTQ+ people). One would expect higher education institutions to take a stand and firmly oppose such inequalities (#258).

Students were also hoping for improved awareness of epidemiological issues in society, more appreciation for medical personnel and for people to have more care for natural environment.

On-line classes – good or bad?

Among the opinions on pandemic on-line classes positives prevailed (n=177) over negatives (n=64). Students in their more elaborate formulations pointed at time efficiency, convenience and effectiveness of on-line classes. Many of the students (n=58) explicitly stated that this form of teaching should be permanently introduced in academic curricula.

I like studying on-line much more, because it allows me to adapt the learning process to the rhythm of my day, making this learning more effective. In addition, this form of education requires more work and self-involvement, so you can gain knowledge by working on various projects instead of attending lectures, which in my opinion is very beneficial (#8).

I can listen to seminars with a purring cat on my lap (#183).

The online classes are an absolute find, I hope that younger age groups will be able to benefit from this form of teaching after the pandemic and it will eventually supersede traditional seminars and lectures (#245).

The most prevalent critical voice regarded inability to gain practical skills during on-line classes (n=25). This form of education also requires technology, that may be faulty or unavailable (n=8). Some students also pointed at the missing aspect of social connection (n=11) and at the di-

minished ability to stay focused in comparison to live classes (n=19).

The only disadvantage of this form of studying are problems with the Internet, which may make it difficult to complete the assignment on time during a test or an exam (#8).

I miss having contact with people, colleagues from the university (#29).

Unfortunately, nothing can replace clinical classes in the hospital (#65).

DISCUSSION

In our study we managed to gather 289 responses to the survey addressed to students of medical faculty during the outbreak of COVID-19 pandemic. The most prominent findings were that 20.76% participants responded they needed assistance or help, 49.83% of students reported that situation worsened their studying conditions, 57.79% requested more interest from University administration in current situation. Approximately 1 out of 5 students reported needing help or assistance and the same proportion of students stated that they were doing bad or very bad with the pandemic. It was quite reassuring, that only 5% of respondents stated that they were deprived of social support. Even though 95% of students reported having someone to talk to and get support from, their worries and insecurities were nevertheless strongly expressed in the survey.

General picture that emerged from analyzed qualitative data was that students faced an anxiety and frustration provoking situation. Not only had they shared their concerns regarding health, future etc. but also voiced frustrations and unfulfilled expectations. It was quite often that students reported feeling not treated subjectively, as if fulfilling the curriculum was more important to University decision-makers than what students were going through. In such circumstances students' needs for being cared for or looked after were unfulfilled. Naturally, there was also the other side of the coin. Many students shared their favorable opinions on online classes, reported that they had more time to spend on other things than studying. The whole situation also helped them grasp a new perspective on what's important in life.

This emotional landscape that emerges from collected data is similar to the one described in the study conducted by Son et al. [7], where thematic analysis was used to analyze qualitative data. Similarly to our data, authors reported that students had concerns regarding health and academic performance, had difficulties with concentrating, suffered increased social isolation, increased workload and had financial difficulties.

Our results also relate to the observation that medical students, even in the absence of a pandemic, may have problems with voicing or reporting their comments, questions and concern [22–24]. Khamees et al. [12] pointed out this may be heightened during a pandemic or other health care crisis, where there may be concern that other priorities far exceed the students' worries or needs. Students may also be afraid of consequences of voicing out their unpopular opinions, like those including a concern for their own safety. This fear may be related to the relatively common responses in our study, reflecting students' unfulfilled and frustrated needs.

There were relatively few narratives on more general, existential issues, that are exceeding the matters of daily students' life (e.g. values in life, environmental issues, economic, social and political circumstances), even though these topics were extensively discussed in mass media at the time of lock-down. We infer that students energy and concerns were mainly focused around adapting to the new studying conditions.

Limitations of the study

The main limitation of this study is the indirectness of the findings resulting from the web-based method. Questionnaire was anonymous, thus we were unable to ensure that there were no multiple responses from the same participant.

It is important to keep in mind that presented data reflects the "snapshot" of students' narratives and affects that were in full motion during a turmoil of lock-down and pandemic. It is possible that students perceived the survey as a mean to influence the university's decision-makers, which could make their answers biased towards emphasizing their unfulfilled and frustrated needs.

Around 50% of respondents were either freshman or senior students with large proportion of respondents being medical students. We infer that being a freshman or senior (of medical faculty especially) is the most difficult time for a student. First one goes through the struggle of adapting to new studying conditions, second is worried about the graduation and the future that comes after. It might be the cause why these students were more eager to fill the survey and share their worries and frustrations.

To our best knowledge, so far there were no efforts in Poland to explore and present data on medical students' situation during COVID-19 pandemic. During the past few months few papers were published outside Poland, that presented data and reflected on students' emotional and psychological condition. It's difficult to draw general conclusions from data coming from just one University. To explore an impact of COVID-19 on medical students more fully, further research, from other Universities and countries, is required.

CONCLUSION

Data presented in this paper is helpful in gaining insight into the emotional and psychological functioning of students during COVID-19 pandemic. What at first sight looked as a temporary situation demanding ad hoc solutions, turned out to be long-lasting and chronic situation that continuously influences and changes lives of all of us. The level of stress and the scale of adaptation that people experience in such circumstances requires higher level of support and care. We believe that paying minute attention to humble details regarding experiences of people during these extraordinary times has a potential to enrich our understanding and help to provide adequate assistance and care (counselling, psychotherapy and other areas).

Declaration of Interest

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