



COVID-19 OUTBREAK: EFFECT ON THE EDUCATION AND MENTAL HEALTH OF RUSSIAN STUDENTS

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Abstract

The outbreak of COVID-19 coronavirus infection in Wuhan and the spreading through the globe forced the governments to rapidly adopt drastic measures to ensure the safety of the population. The effects of these restrictions negatively impact all social and work sectors of the global population to reset their life. In the educational system, the pandemic leads to the near-total closures of schools, universities and colleges and reorganize the educational approach. School closures impact not only has consequences on the students, teachers, and family's life but also economic and societal.

The impact of the Russian government decision to face the pandemic crisis in all level of the public education system and the ability of the educational institute to readapt to the new reality is the topic of the presented manuscript. The main issues, advantages and effect on students, academic workers and families related to the reorganization of the educational system are reported. The effect of the restriction, together with the new learning approach on the mental health of the student in the Russian Federation, is reported. Although all the resources successfully employed by the Russian Federation to quickly counteract the diffusion of the virus, long term strategies have to be adopted to preserve and ensure a wealthy and healthy life of the population.

Keywords:

Outbreak, coronavirus, education, mental health, COVID-19

Introduction

In December 2019, COVID-19 was firstly identified in pneumonia patients in the city of Wuhan, China (Yehudai et al., 2020). Later, the disease was referred to a newly β -coronavirus and defined by the World Health Organization (WHO) as COVID-19. The virus rapidly spread through the China mainland and rapidly all over the world. The WHO declared the COVID-19 a global pandemic on 11 March 2020 (www.who.int/docs).

Countries in all the continents had to face a rapid increase in the number of infected and fatalities, and the response was by adopting two drastic tools; the *quarantine* and *social distancing*.

Quarantine is a highly effective method to control disease outbreaks (Yehudai et al., 2020) by restriction of movements among peoples exposed to the contagious disease but are not ill or do not show any symptoms due to incubation period or because not infected. The social distancing is designed to reduce the interactions between members of a community where individuals may be infected but have not yet been identified and isolated (Yurievna & Gennadievich, 2020).

From April 2020, the Russian Federation experienced an increase in confirmed cases of COVID-19 positive among population and in the death rate; mostly in the metropolitan area of Moscow and Saint Petersburg. As immediate response, the government decide to act the policy of strict quarantine and self-isolation. It led the

abolition of all events with a large number of people, closure of educational institute, aggregation place like gym, sauna, cinema and theatres, cessation of aviation and railways travel and closure of the national borders. In addition, the use of a mask in public places and disinfection of hands was mandatory. The drastic, but required, response of the authorities, changed the habits of the entire population and all sectors were affected, in particular the education.

If the closure of the educational institutes is necessary to protect children, youth and their families and reduce the spread of the virus, it quickly forced to replace the traditional *face-to-face* learning process by the distance or remote learning, also defined as *e-learning*.

In the present work, two main effects of COVID-19 are briefly discussed; the first is the impact of the measures adopted by the Russian government on the education, in terms of advantages, disadvantages and difficulties faced by education institute, and the second concerns the effect on the students mental health.

Effect of COVID-19 on Russian Education System

Following the COVID-19 outbreak in 2020 the Russian Ministry of Education and the Ministry of Education and Science forced universities to close their campus, restrict student's mobility and totally move to remote learning. It represented a big challenge but also an extraordinary experiment. In fact, prior the pandemic crises, several universities in Russia, already provided online courses for bachelor, master and doctoral studies, but it was not expected to suddenly replace the traditional education approach to distance learning. Among the numerous challenges, the most difficulties were to switch the total of the courses to online together with the organization of the campus life. The first was a particular challenge for the technical, scientific and medical field in which some of the classes include laboratories, practice and the use of specific devices which required to be in the spot. Conversely, humanities did not face big issues to switch. The reorganization of the campus, in particular, to ensure the services to international students who could not return home, has been a big challenge. In almost all the university in the Russian territory, the priority was to ensure safe and comfortable conditions by providing medical supervision, sanitizers, gloves and masks for the students and the personnel together with the reorganization of the canteens and co-working area.

Problems to switch to online learning

In the Russian Federation there are around 20 million students of which 4 million enrolled in higher education among the 741 Universities. Of those 4 million more than 300 thousand are international students.

The main issues related to move from *face-to-face* to online education comprise the available technologies, which varies among the educational institutes and the geographical location, and the competency and readiness of students, family and teachers to use such tools.

From the technological point of view, the basic tools to support online education include the network coverage and speed and the possibility to access to devices.

In a survey reported in 2019 (*Source: OECD TALIS Database*) before the virus outbreak, 69% of the higher education teacher reported using information and communication technologies (ICT) for projects and class works. In the same survey, 75% of the teachers also claimed that ICT skills were included in their professional development activities, but at the same time, 15% asked a high need for professional development in the ICT skills for teaching. The data coming out from the pre-crisis survey suggests that the transition to remote teaching and learning in a restricted time may have been challenging a certain number of educational professionals (*Source: OECD TALIS Database*).

According to the Russian Association for Electronic and Communication, there were around 96 million internet users in 2019, suggesting that nearly one-third of the Russian population does not have internet access or means to use it. However, a large portion of this third refers to people over 65 years old, but even among teenagers, the 100% internet access is not reached.

The absence of a single comprehensive platform offering online education also represents an issue, in particular for primary and middle school students. Various educational platforms were built using public money by the local governments and by regional promote contractors, but, as they were not set to hold a high number of users continues outages and technical problems occurs. To overcome it, a large percentage of teachers prefers to give online lessons and provide study materials via ZOOM, Skype or WhatsApp, which are simple to use and for organizing conference calls even with a smartphone.

In comparison to primary and secondary schools, for higher education institutes the situation is better as a National Platform of Open Education founded in 2015, by some of the Russian prominent names in the field of education, including Lomonosov Moscow State University, Saint Petersburg State University, ITMO University, and Moscow Institute of Physics and Technology, is rapidly growing and becoming a unified platform for all open courses in Russia (<http://sras.org/pandemic-effects-russian-education>).

Besides the technological difficulties, in the shift to distance learning, several factors have a negative impact in the quality of the education according to students and teacher's opinion. It comprises low self-organization; lack of control on the instructor's side, lack of interaction student-teacher and among students ending in the sense of isolation which decrease their satisfaction, expectations, and performance.

Advantages of e-learning

In a survey (Nekliudov *et al.*, 2020) conducted within Russian university students before the pandemic onset report several advantages coming out from the e-learning. The three main positive outcomes revealed by the questioned students are; i) flexibility in the learning time and possibility to combine work and study; ii) education at the residence place, this is particularly advantageous for students living in the rural area and for those from low-income families as there is no need to pay for accommodation and transports; iii) decrease in the tuition fees.

The majority of University students and a big part of teachers consider the distance learning positive as it is designed for purposeful and disciplined people. It represents a good approach to develop skills including self-study, ability to plan and organize the study work; time-management and problem-solving skills, ability to work under pressure and be creative and initiative, which are all positive qualities necessary for future professionals.

Impact of COVID-19 on the lifestyle and mental health of high-grade Russian students

The COVID-19 outbreaks negatively affected and altered the lifestyle and habits of people all around the world. With the adoption of self-isolation and quarantine measures to contain the spread of the virus, entire communities had to adapt to the new forced conditions. The rapid increase of the infected cases has created a sense of uncertain and anxiety about what is going to happen generating a tremendous stress among all segments of the population, including students (Sahu, 2020). As mentioned before, in Russia, there are more than 4 million university students, of which 300 thousand foreigners. A survey conducted among Russian and foreign students enrolled in some of the Russian Federation Universities reveals the side effects of self-isolation and quarantine. For international students, additional fears are related to the health state of their relatives, the travel restrictions which do not allow to go home or return back. Among the students, the fear, arising from the change in their daily life, from the organization of the educational and not educational activities (e.g. sport, cinema, music etc..) and a lack of future certainty are the causes of anxiety and depression and subsequently rising in the consumption of legal substances like alcohol, tobacco and prescribed drugs or illegal according to the Russian Federation laws. A sharp increase in the feeling of exhaustion, low mood, nervousness, loneliness, and anger has been reported. In addition, all these factors are amplified because spending the whole day at home, they are consequently exposed to the news available on TV, internet and various social networks, increasing the distress. According to a reported surveys, the main sources of anxiety among the Russian students were primarily related to financial and academy study issues; e.g. anxious about job loss and inability to get a new job; fear of not working and failure to pay study fees; difficulties to focus on the study due to the changes in the life habits and uncertain about the professional future (Yehudai *et al.*, 2020). The COVID-19 mental health statements from students show that they constantly feel depressed and tired during the day; they are not satisfied with what they have done at the end of the day with a subsequent increase in the feeling of useless which led to anxiety in the late hours of the day and affecting the quality of the sleep. To cope with such distress, an increase in the use of substances in particular alcohol and tobacco, which are easy to get than illegal drugs, has been reported, in particular in the youth between 17 and 25 years old.

Conclusions

Following the declaration of COVID-19 pandemic by the WHO, the drastic action imposed by the governments, to reduce the spreading and the fatalities of the virus, forced almost all sectors to readapt to the new and

unexpected conditions and people to drastically change their habits. Education is one of the fields which had to face several issues to reorganize themselves in a very short time. The capacity to readapt to the new conditions differs from each educational institute depending on the level and location, but in general, it can be concluded that in the Russian Federation, in particular, universities successfully managed the changes and ensured the continues of educational activities.

In this manuscript, difficulties faced by Russian educational instituted in the switch from the traditional face to face learning to the remote one is reported together with the advantages of the new educational approach. The outbreak and the effect of the restriction adopted on the student's mental health in terms of stress, anxiety, depressive symptoms, insomnia a general fear is also described.

References

- Nekliudov NA, Blyuss O, Cheung KY, Petrou L, Genuneit J, Sushentsev N, Levadnaya A, Comberati P, Warner JO, Tudor-Williams G, Teufel M, Greenhawt M, Galvin AD, Munblit D. (2020), Excessive Media Consumption About COVID-19 is Associated With Increased State Anxiety: Outcomes of a Large Online Survey in Russia. *Journal of Medical Internet Research* 22(9):e20955
- Sahu, P. (2020). Closure of universities due to Coronavirus Disease 2019 (COVID-19): impact on education and mental health of students and academic staff. *Cureus*, 12(4).
- Yehudai, M., Bender, S., Gritsenko, V., Konstantinov, V., Reznik, A., & Isralowitz, R. (2020). COVID-19 fear, mental health, and substance misuse conditions among university social work students in Israel and Russia. *International Journal of Mental Health and Addiction*, 1-8.
- Yurievna, L. E., & Gennadievich, P. V. (2020). Covid-19: morbidity structure and control measures in Russia. *Asian Pacific Journal of Environment and Cancer*, 3(S1), 13-15