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CONTENTS

EDITORIAL	4
Bhandari M. P.	
In the Covid-19 Regime – What Role Intellectual Society Can Play	5
SOCIAL AND BEHAVIORAL SCIENCES	8
Education	
Original Research	
Pypenko I. S., Maslov Yu. V., Melnyk Yu. B.	9
The Impact of Social Distancing Measures on Higher Education Stakeholders	
Psychology	15
Original Research	
Chakrabarti S., Vidya B. M.	16
Perception of Students on Online Self-Assessment Tool in Anatomy During COVID-19 Crisis	
Health Care Sciences	23
Original Research	
Melnyk Yu. B.	24
International View at Health: World after Pandemic COVID-19	
LETTERS TO THE EDITOR	33
Letter to the Editor	
Georgieva L. M., Borisova B. V.	34
An Invisible Virus Has Made Visible Many Underestimated Problems in Medical Education and Research	
Letter to the Editor	
Sabra Z. E. I.	36
COVID-19 Worries and Opportunities	
REVIEWS	38
Review	
Polianska O. S.	39
Article Review “Sensorimotor Criteria for the Formation of the Autonomic Overstrain of the Athletes’ Cardiovascular System”, authors Romanchuk O. P., Guzii O. V.	
Review	
Alaverdov E. V.	41
Article Review “Phenomenological Perspective in Researching Immigrant Children’s Experience”, authors Batuchina A., Straksiene G.	
Author Guidelines for the International Journal of Science Annals	43

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EDITORIAL

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EDITORIAL



In the Covid-19 Regime – What Role Intellectual Society Can Play

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The contemporary world is in very difficult trajectory. As a matter of fact, the Humanity is in crisis and in challenge. The scholarly world is also kind of traumatized. We all are scared due to uncertainty created by the Corona Pandemic. Covid-19 pandemic has created great uncertainty humanity has ever faced and its impact is everywhere, over the economy, employment, finances, relationships, and physical and mental health as well as in social equilibrium.

When there is crisis, it is normal to lose patience, perseverance and the mental strength, and also there is always a chance of hopelessness. As such we live in hope and hope creates the motivation to move ahead. Motivation creates inner power to human heart as well as in the human brain. The current crisis has direct impact to all of us and we are in the crisis of humanity, and even crisis is hope as well as crisis of motivation.

Our regular thinking pattern is deeply disturbed, our regular living style is altered, our all collegial circles are under confusion and also in suspicious condition within and beyond. When there is a direct hit on human brain due to uncertainty and fear, it raises direct pain in the deep-thinking pattern and when there is danger around us, we may begin to think everything differently. At present our condition is instable therefore, our creativeness, is disturbed, and the established notion of research, development, innovation and contribution to the society at large is also in danger cloud.

In my opinion, at this crisis, to some extent, we are facing abnormality – within ourselves, in societies, and it has spread to social, educational, institutional, political, economic, religious patterns as well as in our deep root of knowledge, wisdom patterns. This abnormality has directly impacted the hope foresee route. At the same time, when danger surrounds us, it is hard to remain calm, peace. This disturbance directly hits the knowledge production pattern. Even Having this situation, if we are able to produce the scholarly papers (knowledge), that means, we are still very strong, we have hope and power of tolerance of uncertainty.

As a lay person of the society and a student of social science, I believe that togetherness, unity, humanly feelings of connectedness within us and beyond, empowers us to be strong and provides the power of tolerance. When we feel that “I am” “we are” not alone, and feel that, we are not only in trouble, that gives an unseen power to look ahead, and prepare for the extreme events, crisis, etc. we may have to face again and again. The Covid-19 is the example of extreme crisis. Here, I would like to share, my feeling and thoughts that, it is just the beginning of Corona impact. As we already know that, it has created untrusty environment especially to the political system (administration). We are noticing various tensions, between governments, governments and citizens or victimized general public.



The innocent poor, people are being victimized without there any role to spread the virus.

Furthermore, it is hard to forecast, what kind of devastating impacts are on the way. It is already noticed that countries economic conditions are already began to collapse. There is strong chance of another global economic recession and it may take several years to overcome from this foreseeable economic recession. We have already seen that, how much the airlines industries, tourism, hotel, recreational industries are suffering. The productional industrial sectors are also in trouble and unemployment is raising almost in every countries of the world. The main, responsible sector – the health system is not being able to cope with the pandemic spread.

These situations have direct impact on our educational systems of all levels. The research agendas are shifted and there is financial scarcity on research and development fields. In this situation, producing knowledge, writing research papers is not easy. However, now, we researchers, and educators have more responsibilities. Because we know the meaning of knowledge, wisdom, innovation, discovery, invention. Therefore, it is our responsibility to produce more knowledge and distribute more which can show that the intellectual world is still active. This activeness of scholarly world can help to maintain hope and motivation within and beyond the academic scholarships. To some extent, we can state that knowledge creates hope.

Through this note, I would like to urge/request to all educators, scholars, scientists and to all other knowledge related stakeholders of the globe, that, the knowledge creators and educators should not stop our research and our contribution to the society. The world has been facing crisis throughout its development processes and the world has already witnessed many pandemic crisis as well as other kind of crises, of many types even apolitical, political, economic, social, psychological, ethnic, gender, race, color, (human created) or natural disasters, which had completely changed the face human civilizations. However, mostly, the saviors have been always the knowledgeable persons or change makers who never stopped working fearlessly. As such we should acknowledge ourselves that, we are the knowledge creators, wisdom generators of the society; therefore, one way or another we are also hope creators; beauty admires, and love and respect maintainers. We should take our responsibility in a way that other stakeholders also realize that, this is not the end of the world and they also need to feel that, together we can bear the risk, tolerate the uncertainty and maintain the hope of anxiety free world.

Here, I would like to state that, as knowledge creators, educators and responsible citizens of this planet, we need to think, how this world can be better place for all of us including all living species of the various ecosystems.

There is term or an idea of Bashudhaiva Kutumbakam (meaning – we all humans – wherever we live, whatever color, race, gender, ethnicity or religion, or political alignments we have- primarily- we are human and we are related and interconnected, similarly, all biodiverse living being are our relatives and the physical structure

– including all ecosystems – of the planet is house for all of us combinedly). This notion, advocates that, each of the living species has the same rights of their survival as we human has, in this earth and its ecosystems. As we already witnessed that, disturbances of planet ecosystems (due anthropogenic disturbances in the planet ecosystems we are already facing climate change, biodiversity loss, sea liven rise, weather variations, flood, land slight, erosions, pollutions etc.) has direct negative impacts on human as well as to all living beings in the planet. Therefore, it is our responsibility to spread the philosophy of Bashudhaiva Kutumbakam and use our all expertise to protect or maintain the ecosystems where each of species can enjoy their existence.

As knowledge practitioners, it is our responsibility to advocate and to make aware to the all concerned stakeholders, that this planet does not belongs to only human it also equally belongs to the all living beings – who are directly or indirectly related to us. Therefore, as scholars, our topmost priority should be to protect the planet and its biodiversity-ecosystems. In another words, we should first accept and realize that, if we human have the human rights of survival, then, why not other living being has no rights of enjoy their lives, since we share the same systems of the planet.

In my opinion, if we believe that, we are knowledgeable, educators, knowledge producers and practitioners; we should not influence by the greed, ego, anger, prejudice, and also should not limit ourselves on only I am right. We should not be in trap of within the individualistic bubbles; instead, need to realize that, we all are directly or indirectly connected within humans and other living being of the planet. We need to explore the ways of “how societies can remain in the harmonious relationships” as well as how we can maintain the harmonious relationships with nature and other living being, who share the same house for survival. We should/can begin this kind of relation – through the service to the humanity and extend that service to the other living beings by using our knowledge and wisdom. Knowledge is the key to open the reality of the problem and knowledge helps to realize or to understand the facts and wisdom is the proper utilization of acquired knowledge. As knowledge practitioner, we are aware that, we are by nature social beings and enjoy ourselves in society. Society can only be harmonious when all members of the society maintain the societal norms and values. Society can only remain healthy- when we respect each other, encourage each other and love each other and importantly if we have balanced resources to maintain the life support system of the society. This notion applies to the large house as well “Bashudhaiva Kutumbakam”. It is kind of extended family – where all living beings share the same planet. Therefore, it is our responsibility, that each of the members can enjoy their part of resources. It is our responsibility to create the harmonious environment, where, live and let other live principles fully gets utilized.

Finally, I request to all scholars to utilize the acquired, learned, experienced and practiced knowledge which can help to create and maintain the harmonious relationships, within and beyond of human and non-human living beings.

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International Journal of Science Annals

**SOCIAL AND
BEHAVIORAL SCIENCES**

Education



ORIGINAL RESEARCH



The Impact of Social Distancing Measures on Higher Education Stakeholders

Authors' Contribution:

- A** – Study design;
B – Data collection;
C – Statistical analysis;
D – Data interpretation;
E – Manuscript preparation;
F – Literature search;
G – Funds collection

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Background and Aim of Study:

Abstract

The global CoVID-19 pandemic has affected education systems dramatically. Remote teaching/learning practices have become everyday reality across the globe.

The aim of the study: to assess the level of readiness of higher education stakeholders for distance learning/remote teaching, and to evaluate the role of social distancing measures.

Material and Methods:

594 stakeholders (216 teachers and 378 students) provided anonymous responses to a questionnaire. Teacher did so during the round table discussion during the 6th International Academic Conference "Psychological and Pedagogical Problems of Modern Specialist Formation" (June 2020). Students responded using Viber, WhatsApp, and Telegram. Validation by Pearson method χ^2 produced statistically significant results ($df=4$, $\chi^2_2=22.083$, $p<0.01$; $df=4$, $\chi^2_3=44.389$, $p<0.01$; $df=4$, $\chi^2_4=29.666$, $p<0.01$).

Results:

62.9% of teachers and 56.6% of students consider educational institutions ready for distance learning. The majority of teachers/students seem to be prepared for it (81.0% and 93.4% respectively). 68.5% of teachers are positive about educational outcomes (contrasted with 90.0% of students). Only 37.0% of teachers and 21.7% of students assess the impact of social distancing measures on physical and mental health positively.

Conclusions:

The survey results prove that social distancing measures impact on higher education is significant. The respondents assess highly their individual levels of preparedness and of satisfaction, students displaying higher levels of both. However, the view on social distancing measures impact on physical and mental health is more negative, the trend being more visible in student responses.

Keywords:

higher education, stakeholders, social distancing, emergency remote teaching/learning, physical and mental health

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Introduction

Novel coronavirus infection (CoVID-19) has affected all spheres of societal life. The first reported illness onset date was 1 December 2019, and the first hospital intake followed on 16 December 2019; in just two months, the World Health Organization declared a Public Health Emergency of International Concern (Huang et al., 2020; Lai, Shih, Ko, Tang, & Hsueh, 2020). The pandemic left very little time, if any at all, for strategic planning or operational deliberation. Transformations have occurred in most sectors of the economy. Education systems have also experienced the impact of the pandemic, one of the major changes being the implementation of remote teaching/learning practices. In simple words, both students and the faculty are now staying away from university premises in many countries, teaching/learning taking place in virtual environments be means of using modern software and/or messaging systems. Most authors underline the common trend in education systems around the world that consists in responding to the crisis with “emergency eLearning protocols” (Murphy, 2020).

It is clear that the pandemic politics will be the object of research for scholars for years and years to come (Williamson, Eynon, & Potter, 2020). So far, they have focused more on “emergency remote teaching”, not learning (Hodges, Moore, Lockee, Trust, & Bond 2020). Many authors agree that the current crisis may well become “the biggest educational technology experiment in history” (Anderson, 2020; Daniel, 2020). One aspect of such an experiment is the use of modern digital technologies in education (Melnyk & Pypenko, 2020). Educators across the globe had to adapt quickly to the new forms of actual teaching (Daniel, 2020; Morgan, 2020). However, smooth such adaptation went, it was (and still is) quite a stressful situation for both teachers and students. The crucial factor in organizing the educational process in conditions of the pandemic is the

Table 1. Overall results of the survey.

Question	Number of respondents' answers according to the scale (n)											
	Very positive/ very high		Positive/ high		Negative/ low		Very negative/ very low		Undecided/ neutral		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
1	183	30.8	167	28.1	141	23.7	48	8.1	55	9.3	594	100.0
2	177	29.8	351	59.1	24	4.0	19	3.2	23	3.9	594	100.0
3	173	29.1	315	53.0	61	10.3	24	4.0	21	3.5	594	100.0
4	33	5.6	129	21.7	244	41.1	78	13.1	110	18.5	594	100.0
5	-	-	-	-	-	-	-	-	-	-	-	-

The Table 1 data show that 58.9% of respondents, when answering the first question, evaluated highly the level of their respective educational institutions' preparedness for emergency remote teaching caused by CoVID-19 pandemic: 30.8% – very high and 28.1% – high. In contrast, 31.8% of respondents consider the above-mentioned level inadequate: 8.1% – very bad, and 23.7% – bad. However, 9.3% of respondents were unable to evaluate the above-mentioned level.

The answers to the second question show that 88.9% of respondents are prepared, as individuals, to conduct emergency remote teaching, which suggests a higher level of individual levels of readiness in comparison

educators' resilience and stress-resistance, i.e. their psychological readiness for teaching under stress (Melnyk & Stadnik, 2020), as well as the policy of individual health protection and the development of student health culture (Melnyk, 2019).

The aim of the study. To assess the level of readiness of higher education stakeholders for distance learning/remote teaching, and to evaluate the role of social distancing measures on the stakeholders in conditions of the global pandemic.

Materials and Methods

Participants and Research Organization

The present study involved 594 stakeholders (216 faculty members and 378 university students) who participated in the survey during the pandemic-related lockdown. Faculty members provided anonymous responses to a questionnaire introduced during the round table discussion on the Zoom Video Communications platform. It was a part of the program of the 6th International Academic Conference “Psychological and Pedagogical Problems of Modern Specialist Formation” held in June 2020. University students responded to the questionnaire using messenger apps such as Viber, WhatsApp, and Telegram.

Statistical Analysis

The statistical analysis was conducted using Statistical Package for Social Sciences (SPSS) for Windows (SPSS Statistics 26). The data were validated using Pearson method χ^2 , which produced statistically significant results (df=4, $\chi^2_2=22.083$, p<0.01; df=4, $\chi^2_3=44.389$, p<0.01; df=4, $\chi^2_4=29.666$, p<0.01).

Results

Overall results of the survey (4 questions) are given in Table 1. As Question 5 presupposed an extended written answer, no scale is applied to analyze it.

with institutional ones (30.0% higher). Specifically, 29.8% were very well prepared, and 59.1% were well prepared. In contrast, 7.2% rated their level of preparedness as inadequate: 3.2% said it was “very low”, and 4.0% said it was “low”. A group of respondents was unable to provide the answer to the second question (3.9%).

The answers to the third question show that the majority of educators (82.1%) are satisfied with the educational outcomes of emergency remote teaching practices (29.1% highly satisfied, and 53.0% just satisfied). A smaller fraction of respondents (14.4%) are not content with the educational outcomes during the pandemic

(10.3% of respondents rated the satisfaction level as “low”, and 4.1% as “very low”). Only 3.5% of respondents are unable to evaluate the level of their satisfaction with emergency remote teaching outcomes. The answers to the fourth question dealing with the effect of social distancing measures on physical and mental health demonstrate a different trend. The positive evaluation of the effect was given by 27.3% of

respondents (5.6% said it was “very positive”, and 21.7% said it was “positive”). However, 54.2 % of respondents evaluated the effect as “negative” (13.1% said it was “very negative”, 41.1% said it was “negative”, and 18.5% were undecided).

Table 2 contains statistical data concerning the differences between two groups of stakeholders – teachers and students.

Table 2. Data on the individual level of preparedness for emergency remote teaching during CoVID-19 pandemic according to teachers/students.

Question	Data grouped according to Stakeholders and Level of preparedness (people/%)										Total (people)	
	Very positive/ very high		Positive/ high		Negative/ low		Very negative/ very low		Undecided/ neutral			
	teachers	students	teachers	students	teachers	students	teachers	students	teachers	students	teachers	students
1	72/33.3	111/29.4	64/29.6	103/27.2	45/20.8	96/25.4	13/6.0	35/9.3	22/10.2	33/8.7	216/100	378/100
2	56/25.9	121/32.0	119/55.1	232/61.4	16/7.4	8/2.1	12/5.6	7/1.9	13/6.0	10/2.6	216/100	378/100
3	48/22.2	125/33.1	100/46.3	215/56.9	40/18.5	21/5.6	16/7.4	8/2.1	12/5.6	9/2.4	216/100	378/100
4	16/7.4	17/4.5	64/29.6	65/17.2	74/34.3	170/45.0	14/6.5	64/16.9	48/22.2	62/16.4	216/100	378/100

When responding to the first question, 62.9% of teachers and 56.6% of students assessed positively the level of institutional preparedness for remote teaching/learning conditions caused by the pandemic: very high – 33.3% of teachers and 29.4% of students; high – 29.6% of teachers and 27.2% of students. However, 26.8% of teachers and 34.7% of students assessed the level of institutional preparedness negatively: low – 20.8% of teachers and 25.4% of students, very low – 6.0% of teachers and 9.3% of students. Notably, 10.2% of teachers and 8.7% of students were unable to assess the level of institutional preparedness.

When responding to the second question, 81.0% of teachers and 93.4% of students assessed positively their own level of preparedness for teaching/learning in conditions of the pandemic: very high – 25.9% and 32.0%, high – 55.1% and 61.4% respectively. Nevertheless, 13.0% of teachers and 4.0% of students assessed their own level negatively: low – 7.4% and 2.1%, very low – 5.6% and 1.9% respectively. Moreover, no responses came from 6.0% of teachers and 2.6% of students, which shows their lack of certainty.

When responding to the third question, 68.5% of teachers and 90.0% of students were positive about being satisfied with teaching/learning outcomes: 22.2% of teachers and 33.1% of students reported “very high” level of satisfaction, and 46.3% of teachers and 56.9% of students reported “high” level of satisfaction. At the same time, 25.9% of teachers and 7.7% of students responded negatively: low level – 18.5% and 5.6%, and very low level – 7.4% and 2.1% respectively. Notably, 5.6% of teachers and 2.3% of students failed to identify their level of satisfaction.

The effect of the pandemic-caused social distancing measures on teachers and students’ physical and mental health is reflected in the fact that 37.0% of teachers and 21.7% of students assessed those positively: very high – 7.4% of teachers and 4.5% of students, high – 29.6% of teachers and 17.2% of students. That means teachers seem to enjoy a greater measure of physical and psychological comfort that students do, the teachers’ level of satisfaction being 15.3% higher. However, 40.8% of teachers and 61.9% of students assess the

above effect negatively: low – 34.3% of teachers and 45.0% of students, very low – 6.5% of teachers and 16.9% of students. Characteristically, 22.2% of teachers and 16.4% students failed to assess the effect of the pandemic-caused social distancing measures. It can be emphasized that the negative attitude is more pronounced in student responses (21.1% more such responses compared with those given by teachers).

Thus, the trends observed in the survey testify to the absence of marked differences in responses of teachers and students to the first question only, which means that both categories of stakeholders are prepared well for the educational “emergency”. In contrast, the responses to the second, third and fourth question demonstrate marked differences in attitudes. Moreover, one can draw a conclusion that it is the faculty but the student body that is affected more negatively by the social distancing measures introduced during the pandemic.

To estimate the discrepancy validity, we have used the Pearson method χ^2 in this research. The study sample consisted of 594 responses obtained from 216 teachers and 378 students. The differences were analyzed between the observed values (the existing ones) and the expected values (the mathematically predicted as a hypothesis) that follow the square distribution. The expected values were determined based on group values according to the null hypothesis. The statistical analysis was conducted using SPSS Statistics 26.

Tables 3–6 show the results of the calculations of the expected values based on the observed ones, according to each of the four questions.

The statistical analysis of responses to question one reveals an insignificant difference between the expected and the observed values (χ^2 values are not at a critical level). The null hypothesis stating the absence of differences has been confirmed. When dealing with the responses to questions 2-4, marked differences have been observed (χ^2 values have achieved a critical level for a fixed number of degrees of freedom $df = (2-1) \times (5-1) = 4$, so the null hypothesis has been rejected, which leads to the conclusion that statistically significant differences have been observed.

Table 3. Data on expected values based on the observed distributions in the levels of institutional preparedness for emergency remote teaching in conditions of the CoVID-19 pandemic.

Parameter	Observed and expected values grouped according to respondents' answering scale										Total
	Very positive/ very high		Positive/ high		Negative/ low		Very negative/ very low		Undecided/ neutral		
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	
Teachers	72	67	64	61	45	51	13	17	22	20	216
Students	111	116	103	106	96	90	35	31	33	35	378
Total	183	183	167	167	141	141	48	48	55	55	594
H0-hypothesis, %	31		28		24		8		9		100

Table 4. Data on expected values based on the observed distributions in the levels of individual preparedness for emergency remote teaching in conditions of the CoVID-19 pandemic.

Parameter	Observed and expected values grouped according to respondents' answering scale										Total
	Very positive/ very high		Positive/ high		Negative/ low		Very negative/ very low		Undecided/ neutral		
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	
Teachers	56	64	119	128	16	9	12	7	13	8	216
Students	121	113	232	223	8	15	7	12	10	15	378
Total	177	177	351	351	24	24	19	19	23	23	594
H0-hypothesis, %	30		59		4		3		4		100

Table 5. Data on expected values based on the observed distributions in the levels of satisfaction/dissatisfaction with individual educational outcomes in conditions of the CoVID-19 pandemic.

Parameter	Observed and expected values grouped according to respondents' answering scale										Total
	Very positive/ very high		Positive/ high		Negative/ low		Very negative/ very low		Undecided/ neutral		
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	
Teachers	48	63	100	115	40	22	16	9	12	8	216
Students	125	110	215	200	21	39	8	15	9	13	378
Total	173	173	315	315	61	61	24	24	21	21	594
H0-hypothesis, %	29		53		10		4		4		100

Table 6. Data on expected values based on the observed distributions in the measure of the impact of social distancing procedures caused by the CoVID-19 pandemic on the respondents' self-assessment of physical and mental health.

Parameter	Observed and expected values grouped according to respondents' answering scale										Total
	Very positive/ very high		Positive/ high		Negative/ low		Very negative/ very low		Undecided/ neutral		
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected	
Teachers	16	12	64	47	74	89	14	28	48	40	216
Students	17	21	65	82	170	155	64	50	62	70	378
Total	33	33	129	129	244	244	78	78	110	110	594
H0-hypothesis, %	5.6		21.7		41.1		13.1		18.5		100

The critical value χ^2_{cr} for $df=4$: $\chi^2_{cr}=9.448$ by $p=0.05$; $\chi^2_{cr}=13.277$ by $p=0.01$. The calculated value χ^2 is bigger than the critical value (>13.277) in responses to the second question (22.083), to the third question (44.389), and to the fourth question (29.666). It confirms that the differences in the compared aggregates of data are statistically significant ($df=4$, $\chi^2=22.083$, $p<0.01$; $df=4$, $\chi^2=44.389$, $p<0.01$; $df=4$, $\chi^2=29.666$, $p<0.01$).

Thus, the statistical analysis has proved that responses from teachers and students demonstrate no difference of opinion when answering the questions dealing with the level of institutional/individual preparedness for

emergency remote teaching in conditions of the CoVID-19 pandemic.

Both categories of stakeholders reported high levels of individual preparedness for emergency remote teaching/learning, the students displaying a slightly higher level of self-confidence in dealing with the situation. In contrast, the marked differences in responses observed during the survey suggest the idea that the students are affected more by the social distancing measures, which testifies to the negative effect of social distancing on the physical and mental health of this category of stakeholders.

Discussion

In general, the results comply with a number of findings obtained previously. In the first months of the pandemic, remote teaching practices were analyzed by researchers (Liguori & Winkler, 2020; Maslov, 2020; Ozer, 2020). It has been emphasized that the global-scale emergency called for the creation of a crisis-driven teaching/learning environment rather than complex institutional planning. As such, it may have become “the biggest educational technology experiment in history” (Anderson, 2020; Daniel, 2020). It seems that humankind has been presented with an opportunity to view the world more holistically and realistically (Xafis, Schaefer, Labude, Zhu, & Hsu, 2020). The authors have also described various aspects of using modern digital technologies in education (Melnik & Pypenko, 2020). In the present paper, we focus on the crisis response by institutions of higher education that varied from country to country. In the digitally advanced countries, the transition was swift. For instance, top-25 U.S. universities discontinued face-to-face schooling at about the same time in March 2020, and every university declared emergency eLearning policies (Murphy, 2020). Consequently, educators had to adapt quickly to the new forms of actual teaching (Daniel, 2020; Morgan, 2020). In most countries, medical education was affected to a great extent, which can be viewed both as a positive influence (a rare opportunity for professional development) and a disruptive one (Alsaf, Abbas, Hassan, & Ali, 2020; McMaste, Veremu, & Santucci, 2020; Ting, Carin, Dzau, & Wong, 2020). Economics education was affected, too. Interestingly, some authors find a lot of positivity in such education practices because educators were made to practice what they typically preach, that is, to adapt to market conditions, to remain agile, and to innovate (Lugiori & Winkler, 2020). However, new concerns have emerged at once. Among many, some are connected with the pitfalls in the use of advanced technology: for instance, “zoom-bombing” etc. (Reich et al., 2020). But it is obvious that, nevertheless, the crucial factor in organizing the educational process in conditions of the pandemic is the stress-resistance level of the teachers (Melnik & Stadnik, 2020), as well as the policy of individual health protection and the development of student health culture (Melnik, 2019).

The present survey results have proved that the target group of educators from 20 countries was/is well prepared for the pandemic-driven emergency remote teaching, which includes the flexibility of institutional support. The lower level of satisfaction with the educational outcomes can be viewed as a manifestation of teacher-specific neuroticism that works against overestimating the gains rather than an indicator of a decline in the quality of teaching.

It has been suggested that the pandemic may be a factor of ‘revolutionizing’ teaching/learning practices, the main impact being on the system of professional values shared by educators worldwide (Melnik, Pypenko, & Maslov, 2020). The survey participants reported increased opportunities for research work, familiarizing with educational management activities and wider contacts with the international educational community.

Conclusions

The survey results demonstrate that the impact of social distancing measures on higher education practices is quite significant. The majority of participants have assessed highly their individual levels of both preparedness for teaching/learning and of satisfaction with the educational outcomes. Interestingly, students have displayed higher levels of preparedness and satisfaction. However, the assessment of the impact of social distancing measures on physical and mental health is generally more negative, the trend being more visible in student responses.

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**SOCIAL AND
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ORIGINAL RESEARCH



Perception of Students on Online Self-Assessment Tool in Anatomy During COVID-19 Crisis

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Authors' Contribution:
A – Study design;
B – Data collection;
C – Statistical analysis;
D – Data interpretation;
E – Manuscript preparation;
F – Literature search;
G – Funds collection

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Background and Aim of Study:

Abstract

As anatomy subject is the basis of the MBBS curriculum, it's clear understanding and knowledge is needed. Syllabus of anatomy is vast and also volatile, to summarise large amounts of facts and train students for acquisition of the skills, we believe that students learn by practice. Due to COVID-19 crisis on educational system online learning and assessment of students has become a preferable replacement of conventional in person teaching and learning.

The aim of the study: to determine the perception of first year MBBS students on online self-assessment tool in anatomy, to evaluate their academic achievements during COVID-19 crisis.

Material and Methods:

The present study included 50 students of first year MBBS of Saveetha Medical College. Steps to conduct the aim for divided in two google forms, one contains challenging questions on the topic Lungs and Heart and other was a questionnaire to know the students' perception on this online assessment tool.

Results:

It was observed that majority of the students have attempted the first google form and have also performed really well in it. 80% of the students were successful in giving the right answer for the questions given. In the second google form, which was a questionnaire, 85% of the students have found this online self-assessment to be really useful, interesting and easy way of learning. They found the questions to be challenging and help them to remember the topic in a long run. 91% of the students have liked the way of learning.

Conclusions:

Online self-assessment tool definitely proved to be a student friendly method of learning. This method gave them a way to learn and practice their subject topics as well as helped them in improving their perception and memory.

Keywords:

education, students, perception, memory, anatomy, COVID-19

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Introduction

Anatomy is one of the fascinating subject in MBBS curriculum which involves a lot of understanding of basics and knowledge of the clinical part. It is the study of the internal structure and structural design of the living things.

In the vast curriculum of MBBS, anatomy is one of the challenging subjects among the students. As 1st year MBBS students, anatomy doesn't prove to be cake walk as students are newly exposed to the unfamiliar environment of the curriculum. They are exposed to totally new scenario of teaching and learning process (Jaiswal, Sathe, Gajbhiye, & Sathe, 2015).

The learning characteristics of students have been extensively studied and numerous theories have been proposed. For example, in the widely read theory of andragogy, Knowles (1984) described adult students as self-directed learners whose knowledge acquisition occurs best when it is exploratory and task-oriented, rather than via rote memorization. Learning involves the reorganization and transfer of new information from the limited confines of working memory to the limitless repository of the long term memory. Working memory, or what we can consider at conscious memory, is characterized by storage durations as well as content capacities that both are very limited. Long term memory encompasses our repository of accumulated knowledge and therefore has a capacity that is theoretically boundless. The challenge facing each learner is to organize new information, as it is added to this repository, so that it can be successively retrieved and applied in a timely fashion when needed. With that in mind a challenge facing anatomy educators is to effectively guide learning so as to maximize the efficiency with the new knowledge is encoded in long term memory (Kirschner, Sweller, & Clark, 2006).

With the recent crisis and disruption of education system due to COVID-19 crisis it's the need of the hour to develop and strengthen the online mode of teaching and learning and online assessment of students through development of technology. The paper (O'Byrne, Patry, & Carnegie, 2008) describes the development and implementation of program based online anatomy learning and self-directed tools for undergraduate faculty of health science students enrolled in first year combined anatomy and physiology courses at the university of Ottawa.

Generally, students find it difficult in understanding of concepts and learning of the subject. Eventually students get frustrated and lose their hopes over the subject as a result, there is a loss of self-confidence among the students. Among this confusion in the students, anatomy professors play an important role (Nagar et al., 2012). They act as helping hands for the students struggling with the subject. The role of the faculty members in the medical education is to influence the learning process. The introduction of multiple techniques of learning is necessary to create an easy learning among the students. Students feedback is a useful basis for modifying and improving medical education (Bandyopadhyay & Biswas, 2017). Therefore, in developing the teaching and assessment method it is necessary to get the feedback from students that will later be useful for the

faculty to modify their teaching and assessment methods (S. Rafique & H. Rafique, 2013).

A systemic process of collecting, analyzing and interpreting data in order to validate or judge students is assessment (Shamkuwar & Mokhasi, 2018). Nowadays different innovative teaching techniques which bring about an interest in the students are introduced. There are many techniques like anatomical books, cadavers, prosection anatomy 3D views, audio and visual learning. Among all this is online self assessment. Nowadays students have become more familiar and expert in operating the electronic devices like smart phones, laptop, etc. The correlation of these devices with anatomy study can create a better combination in learning and practicing of the subjects (Davis & Dargusch, 2015). Online self assessment is equally important as online teaching and learning thus without a proper comprehensive online assessment tool the teaching or learning does not fulfil the purpose and cannot motivate the students so there was a need of immediate development of variety of online assessment tools, programs with the prevailing COVID-19 crisis. MCQ are reliable, valid and most easily assessable form. Online assessment method can be accessible anywhere without any obstruction. Nevertheless, online assessment tool can be of utmost help to the students (Obad et al., 2016). Keeping this technique in mind, the present study is conducted on perception of 1st year MBBS students towards an online assessment tool especially in the year when the world had to face the COVID-19 crisis of the century.

The aim of the study. To determine the perception of first year MBBS students on online self-assessment tool in anatomy, to evaluate their academic achievements during COVID-19 crisis.

Materials and Methods

A cross-sectional, descriptive study was conducted on 50 students of first year MBBS who are currently into the course of first year in Saveetha Medical College and Research Institute Chennai after receiving Institutional Review Board clearance. Two online Google forms were prepared which gives a brief description and response about the study.

Google form 1: This Google form contains challenging and interest provoking questions on the topics of anatomy of heart and lungs. There are 20 questions framed for the students to answer. The students were asked to respond to the questions after the topics were completed. As this was a first hand experience for the students the questions were kept simple and straight forward. This form even consists of students details like name and email-id so that we can assess each particular student's knowledge about the topic though confidentiality was maintained throughout the study. The performance of students was analysed in detail.

Google form 2: This anonymous Google form consists of questions about the students' perception on the online assessment tool in anatomy, basically a questionnaire about the students' experience with the online assessment tool. This questionnaire involved questions like whether the students found it easy, whether it was a

preferable mode of learning, whether it was interesting, challenging and thought provoking and other related questions. Students were informed that the information provided by them is for the research and evaluation purpose only and will be kept confidential. The analysis of the perception of students were done.

Table 1. Questions asked on the topic heart and lungs.

No.	Questions	Answer options			
		A	B	C	D
1.	The base of the lung separates the left lung from	Left lobe of the liver	Oesophagus	Fundus of the stomach	Inferior vena cava (IVC)
2.	The apex of the lung is covered by	Suprapleural membrane	Parietal pleura	Costal surface	Mediastinal pleura
3.	Right lung is divided into	3 lobes	2 lobes	1 lobe	4 lobes
4.	The projection of the left lung below the cardiac notch is	Middle lobe	Lingula	Alveoli	Bronchus
5.	Which lung is shorter and broader	Right	Left		
6.	Blood supply to the lungs predominantly from	Bronchial artery	Musculophrenic	Intercostal artery	Internal thoracic
7.	Sympathetic supply of lungs is from	T6-T10	C3-C5	2-5 Sympathetic ganglia	T2-T5
8.	Trachea divides at the level of	T1	T5	T4	T3
9.	Inhaled particles of foreign body tend to pass more frequently	Right lung	Left lung	Right principal bronchus	Left principal bronchus
10.	Which are the surgical sector of lungs	Root of lungs	Hilum of lungs	Bronchopulmonary segment	Bronchus
11.	The area where the trachea bifurcates	Carina	Hilum	Lingula	Visceral pleura
12.	The pericardium is a	Fibrous sac	Fibroserous sac	Muscular sac	Serous sac
13.	Breakdown of dorsal mesogastrum forms	Oblique sinus	Costodiaphragmatic recess	Costomediastinal recess	Transverse sinus
14.	Nerve supply to pericardium	Phrenic	Vagus	Intercostal nerve	Cardiac plexus
15.	Apex of the heart is formed by	Left ventricle	Left atrium	Right ventricle	Left auricle
16.	The inferior border of the heart extends from	Apex to left auricle	SVC to IVC	Apex to IVC	Apex to right atrium
17.	The opening of coronary sinus is guarded by	Eustachian valve	Thebesian valve	Mitral valve	Tricuspid valve
18.	Narrowing of valve orifice due to fusion of cusps is	Stenosis	Pericarditis	Fistula	Block
19.	Blood supply to heart is by	Internal carotid artery	Coronary vessels	Musculophrenic artery	Descending aorta
20.	Sympathetic nerves of the heart are derived from	Superficial cardiac plexus	Deep cardiac plexus	T4-T5	T5-T6

Results

Responses were taken from the first year MBBS students at Saveetha Medical College and Research Centre on the first Google form which contains questions on heart and lungs (Table 1). Responses were collected for each and every question.

Figure 1 shows about the percent of correct responses obtained from the students on the online self-assessment tool. This figure gives us an idea that most of the students have found it really easy and helpful way of learning. Most of the students have given the right answers for all the questions. A very few students have answered the incorrect one and this proves that most of the students have found it to be a very easy way of learning.

Responses were collected from the students about the overall positive perception of them on this online self-assessment tool. Majority of students agreed on using this method of online assessment.

Table 2 shows the overall response of the students towards the online assessment tool in form of MCQ's in Google form.

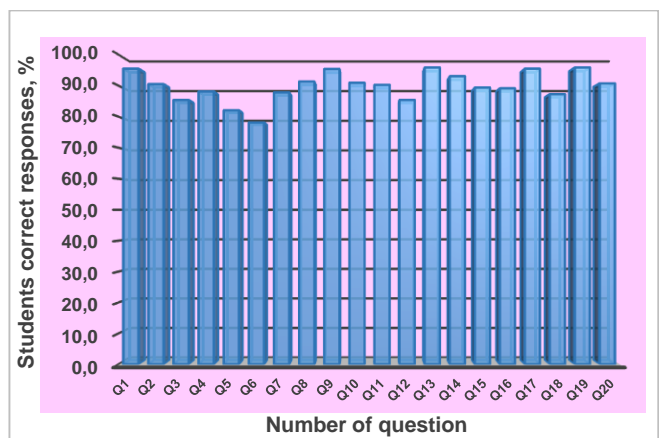


Figure 1. The percent of correct responses of the students on each question.

Table 2. The overall response of the students towards the online assessment tool.

Questions on perception of students on online assessment tool	Number of students' answers according to the scale, %					
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
Did this assessment tool help in improving your memory?	0.0	17.6	11.8	47.1	23.5	100.0
Was this assessment interesting?	0.0	0.0	17.6	29.4	53.0	100.0
Did this assessment kindle your interest in anatomy?	6.0	0.0	6.4	32.0	55.6	100.0
Was this assessment useful?	0.0	5.9	11.8	47.1	35.2	100.0
Were the questions in the assessment challenging?	0.0	16.7	25.0	50.0	8.3	100.0
Did you like this way of learning?	0.0	8.3	16.7	16.7	58.3	100.0
Were you able to attend the questions?	8.3	0.0	8.3	66.7	16.7	100.0
Was this assessment an easy way of learning?	15.4	0.0	15.4	53.8	15.4	100.0

A total of 23.5% of students has strongly agreed and 47.1% have agreed that this online assessment has proved to really useful to improve their memory. A total of 53.0% have strongly agreed and 29.4% have agreed that this online assessment tool is interesting. A total of 55.6% have strongly agreed and 32.0% have agreed that this online assessment was able to kindle their interest in anatomy. A total of 35.3% have strongly agreed and 47.1% have agreed that this assessment was useful to them. A total of 8.3% have strongly agreed and 50.0% have agreed that this assessment was challenging to them. A total of 58.3% have strongly agreed and 16.7% have agreed that they liked the method of learning. A total of 16.7% have strongly agreed and 66.7% have agreed that they were able to attend the questions given in the online assessment tool. A total of 15.4% have strongly agreed and 53.8% have agreed that this is an easy way of learning for them.

The overall positive response of the students for online method of assessment in 1st MBBS students which is comparatively new provided confidence to the educators and teachers at the time of COVID-19 crisis and thus opened a new approach which was to be adopted widely in the coming months.

Discussion

Anatomy is one of the challenging and basic subjects essential in the curriculum of MBBS (Gune et al., 2018). It involves more of learning and practicing of the topics. Extensive changes have taken place all around the world to improve the standards of education.

Learning and practicing methods are not just restricted to textbooks and lectures.

Nowadays access to internet, electronic gadgets, journals and educational videos are the newer concepts of learning (Jaiswal et al., 2015).

Social distancing during COVID-19 pandemic accelerated digitalization of education (Melnyk, Pypenko, & Maslov, 2020).

The COVID-19 pandemic forced almost all global higher education institutions to rapidly move to online instruction whether the institution, the faculty or the

students were ready for the move (Houlden & Veletsianos, 2020).

Online learning places emphasis on interactions between and among different channels and forms of interaction for students in the online environment to let learners be more engaged in the learning process (Riggs, 2020).

The COVID-19 pandemic required expansion of existing infrastructure and more demanding forms of technology-enhanced learning (Zimmerman, 2020).

Digitalization of education and the use of information technology are crucial for teaching students today (Melnyk & Pypenko, 2020).

Features of the perception of educational programs by students of medical universities were studied by Melnyk, Yekhalov, and Sedinkin (2020).

To make things easier for students, assessment methodologies have evolved. Assessment is an essential part of medical education. It is the central to the educational process. It shows how well students have learnt the subject (Shamkuwar & Mokhasi, 2018).

One of the assessment method is online assessment tool which easily accessible anywhere in providence of internet connection. Through feedback about this online assessment we can find whether this method has helped the students in coping with their learning and practicing process (Bandyopadhyay & Biswas, 2017).

Over the past decade, medical schools, postgraduate training programs, and licensing bodies have made new efforts to provide accurate, reliable, and timely assessments of the competence of trainees and practicing physicians (Epstein, 2007).

Such assessments have three main goals: to optimize capabilities of all learners and practitioners by providing motivation and direction for future learning, to protect the public by identifying incompetent physicians, and to provide a basis for choosing applicants for advanced training (Tabish, 2008).

In this study, we have just taken online assessment as a way of learning and practicing. There are many other methods and ways which has been used extensively by the students.



A study in Bhopal showed that 54.3% students preferred multimedia teaching methods as the best anatomy teaching methodology and it relies on scientific and does not cause lack of attention (Jaiswal et al., 2015).

As the teaching methodology majority of students feel that dissection hall teaching is the best method followed by slide projector/AV projection/Multimedia, conventional chalk and board methods (Hassanzadeh et al., 2012).

A study states that, 82.0% of the students agreed that the effectivity and reliability of the multimedia-supported anatomy teaching in both the theoretical and practical classes was useful as there was a notable increase in the academic performance of the students. In the present study, 35.3% have strongly agreed and 47.1% have agreed that the online assessment tool was really helpful to them (Al-Hayani, El-Aziz, Eldeek, & Hammad, 2008).

In a study, majority (75.0%) of the students felt that multiple modes of assessment improve their knowledge and skill. 32.7% of the students favoured MCQ's as a mode of assessment. In the present study, we have given MCQ's as a self-assessment tool in online mode and 47.1% of students have found that this MCQ based online assessment helps them in remembering the topics (S. Rafique & H. Rafique, 2013).

In the study conducted, 46.7% of students were aware of the internet as a tool to learning and judge it as an effective source of self learning. In the present study, 58.3% of students have agreed that the online self-assessment is an easy way of learning (Nagar et al., 2012).

From the experiences of the researchers in teaching undergraduate students, a study was conducted about collecting feedback on the assessment given to the students.

It was recognized that while considerable effort in recent years had been focused on improving the quality of lecturer feedback on student assessment, students reported that they were not consistently engaging with the feedback provided on assessment items.

In the present study students were given a feedback form on the assessment given to them and majority of them find it challenging and useful (Davis & Dargusch, 2015).

When we talk about topic in anatomy, majority of them have found neuroanatomy, pelvis, perineum to be the difficult topics in a study made.

In such cases we can help students by creating and introducing these online assessment tools as it creates confidence among the students when practiced using these online tools (Kramer & Soley, 2002).

As we have taken online assessment as our prime method of assessment to access the students, majority of the students have shown interest in it and found the learning and self-testing tool to be user-friendly, relevant and helpful.

However, approximately one third of the students did not find the online assessment tool useful.

One strategy that could be used to encourage students to develop a personal schedule of regular practice

application would be routinely assigned specific exercises that should be done when they are leaving at the end of the lecture.

Students can be encouraged by the faculty member to complete the given online assessment at the earliest as it shows a great impact when it comes to a long term plan.

A majority of the students have even found the questions in the online assessment to be challenging as it helped them to get a clear knowledge and made them remember the topic on a long run (O'Byrne et al., 2008).

A more important value of these online learning tools maybe their ability to appeal to learning styles that are often not addressed very strongly in the lecture room.

Undergraduate classrooms are composed of heterogenous populations of learners and these anatomy learning tools to address some of this heterogeneity. In a study, described four types of learning preferences: visual, aural, read/write and kinesthetic and developed a simple online questionnaire that students can use to recognize their primary learning style (Chapman et al., 2013; Densen, 2011).

What is the value of devoting so much time and energy to the development of these online self assessment tool when there already many offline interactive methods available to increase the knowledge and practicing way of the students?

The commercially available tools are indeed really helpful, but they often get difficult for the students to find such books and get them at an affordable cost.

The other tools might most of the times provide information that is more than required for the undergraduate level and makes it difficult for the students to read them and have a self assessment concerning those difficult topics.

But this online assessment tool is easily accessible anywhere and exactly provides the information and knowledge and assessment which can help them later in final exams too and make it a cake walk for the students. This is the need of the hour more due to COVID-19 crisis development of not only teaching online tools but equally important is the development of assessment tools which are student friendly and easy to operate.

In other studies, scholars have compared knowledge acquisition by students using an SDL approach versus other more traditional modes of content delivery (Kooloos, de Waal Malefijt, Ruiters, & Vorstenbosch, 2012; Leslie, 2017; Smythe, & Hughes, 2008).

Murad et al. (2010) conducted a systematic review of the effectiveness of SDL in the health professions. They found moderate quality evidence that SDL activities result in gains in the knowledge domain when compared to traditional teaching methods.

Similarly, in present study too the online assessment can promote self-directed learning and it's a motivation for students too for further learning.

In the present study, 53.0% of students felt the assessment tool was interesting, and 50.0% felt it was challenging, 58.3% preferred the tool, 53.8% felt it's an easy way of learning.

A clear comparison of the objective data of other studies and of present study are shown in Table 3.

Table 3. A clear comparison of the objective data.

Data of other studies	Data of present study
54.3% of the students have considered as multimedia to be the best method of learning	52.9% of the students have strongly agreed that online self-assessment tool is an interesting way of learning
82.0% of the students have considered that multimedia supported learning is helpful	82.4% of the students have found online assessment tool to be really helpful in learning
46.7% of the students were aware of internet as easy, effective and helpful way of studying	58.3% of the students have found that this online assessment is an easy way of learning
32.7% of the students found MCQ based online assessment to be best mood of assessment	47.1% have found this MCQ based online assessment to be the helpful in remembering the topics

Conclusions

An opinion regarding the online assessment tool in anatomy was taken in Saveetha Medical College concluded that majority of the students have found the online assessment to be really useful as a tool for practice and learning. This method has encouraged students in learning and practicing their topics in which they aren't confident and helps them to cope with the vast curriculum.

Our study shows that students have found the online assessment questions to be challenging and helps them to know their strong and weak topics in the subject. This online tool helps them in improving their perception and memory, and place a strong foundation about the topic in the students' mind. The students also found this method to be really easy and helpful way of learning.

As the learning and teaching has changed a lot over the years, both students and teachers can choose the best suited method to enrich and deliver the knowledge. In the end, the online assessment tool has been proved to be an innovative and student-friendly method of learning and practice in anatomy.

Despite the efforts made in making MBBS curriculum easy for the first year students, still many of them are struggling to cope up with the subject and efforts are still made to bring new methods to the students and help them in all possible way.

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Ethical Approval

Permission for this study was obtained from the ethic committee of institution and informed consent was obtained from students (Approval No. SMC/IRB/0052/020 from 26.03.2020).

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ORIGINAL RESEARCH



International View at Health: World after Pandemic COVID-19

Melnyk Yu. B.^{1,2 ABCDEFG}

Author's Contribution:

- A – Study design;
B – Data collection;
C – Statistical analysis;
D – Data interpretation;
E – Manuscript preparation;
F – Literature search;
G – Funds collection

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**Background and
Aim of Study:****Abstract**

Nowadays the whole human race is undergoing a crisis caused by the COVID-19 pandemic, whose duration and consequences are difficult to forecast. In the face of the real danger we begin redefining conceptual bases of mankind, as well as the role of the state as a guarantor of the health safety of its citizens and the world community. The aim of the study: to explore the influence of different approaches to solving the pandemic problem in Ukraine, Singapore, and China on the indicators of COVID-19 dynamics.

Material and Methods:

A complex of methods was used: theoretical – factor-criterion analysis, abstraction, comparison, synthesis, systematisation, generalisation; empirical – observational methods (systematic observation); methods of mathematical analysis.

Results:

The study of the indicators dynamics showed that different approaches to solving the pandemic problem in Ukraine and Singapore had significant differences. Compared to Singapore in Ukraine for 4 months in 2020, the number of COVID-19 cases is 22.5 times higher, the number of recovered is only 6.5 times higher, and the number of deaths is multiple times higher: 2908.5 times. The connection between the dynamics of the COVID-19 pandemic (cases, recovered, deaths) in Ukraine, Singapore, China and the measures taken by the governments of these countries, as well as the personal responsibility of the population, was determined in the study.

Conclusions:

The infection which appeared in one country can transform into a global world problem in a matter of seconds. Responsible policy and practice instead of manipulation and bureaucracy are able to protect people of the risk group and create favourable conditions for life activity of those who do not belong to this group. Important factors in successfully overcoming the pandemic is the personal responsibility of citizens and health culture of the population.

Keywords:

COVID-19, pandemic, indicators, dynamics, health culture

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Introduction

The world which we lived in, has changed for several months of 2020, and will never be the same as before. Nowadays the whole human race is undergoing a crisis whose duration and consequences are difficult to forecast. Even model developers and computer specialists cannot give precise prognoses of the way further events related to the COVID-19 pandemic will develop.

Science and technologies have turned to be powerless not only in terms of resisting this pandemic but also in terms of foretelling how the events will change. The problem was that model developers did not have any idea of how the virus would behave in natural conditions. Modelling was based on the possibility to control the virus, i. e. control of the man as a virus' master but not of a virus as a virus molecule beyond the master.

Despite an extremely tiny size (there can be tens of millions of virus entities on one square millimetre (Koops, 2020) and a short life of SARS-CoV-2 Coronavirus, this period turned to be enough for its rapid spread around the whole world.

Undoubtedly this spread has been mainly caused by a man's significant role in it. But why have all the measures over people who carry this virus, proved to be low-efficient in confronting this threat? The infection that appeared on the territory of a sub-provincial town Wuhan in the province of Hubei in China, has grown from a local problem into the one of an international scope just for several months.

As we have mentioned China, for fairness' sake I should admit that namely China has demonstrated the highest indices in struggling COVID-19 spread and measures of giving medical assistance to the infected population.

Certainly, strict authoritarian government measures have produced a significant effect on resisting the spread of the COVID-19 pandemic in China. Still, the issues of how it is justified, what its efficiency is for an individual country and the world on the whole, are left to be analysed. Government policies in different states concerning administrative measures (starting with closing borders and finishing with work of national health systems) are necessary to be considered as well.

The aim of the study. To explore the influence of different approaches to solving the pandemic problem in Ukraine, Singapore, and China (from formal government measures to personal responsibility and health culture of the population) on the indicators of COVID-19 dynamics.

Materials and Methods

A complex of methods was used: theoretical – factor-criterion analysis, abstraction, comparison, synthesis, systematisation, generalisation; empirical – observational methods (systematic observation); methods of mathematical analysis.

Results

In the study of the quantity of those who have caught the disease, and recovered after it, and the indices of the death rate to demonstrate different strategies by struggling the COVID-19 pandemic, we based on the official data of Johns Hopkins University, Coronavirus Resource Center (2020).

To analyse the dynamics of the COVID-19 pandemic spread, I have chosen the country that I live in (Ukraine), and the country situated in the list next to Ukraine (Singapore), Tables 1–3.

Table 1. The COVID-19 pandemic indicators (June 28, 2020).

Position	Country	Number of cases	Number of recovered	Number of deaths
34	Singapore	43,246	37,163	26
35	Ukraine	42,932	19,350	1,121

Table 2. The COVID-19 pandemic indicators (July 1, 2020).

Position	Country	Number of cases	Number of recovered	Number of deaths
34	Ukraine	45,924	20,244	1,188
35	Singapore	44,122	39,011	26

Table 3. The COVID-19 pandemic indicators (October 28, 2020).

Position	Country	Number of cases	Number of recovered	Number of deaths
21	Ukraine	374,023	155,028	6,938
66	Singapore	57,987	57,883	28

We use the comparison method to analyse the data. This method assumes the calculation of deviations: relative (based on the growth rate) and absolute. The results of

calculating the deviations of indicators in the comparative period (data in Table 1 and Table 3) are presented in Table 4.

Table 4. Results of calculating deviations of indicators in the comparative period.

Country	Growth rate, %			Relative deviation, %			Absolute deviation, people		
	Number of cases	Number of recovered	Number of deaths	Number of cases	Number of recovered	Number of deaths	Number of cases	Number of recovered	Number of deaths
Ukraine	871.2	801.2	618.9	771.2	701.2	518.9	331,091	135,678	5,817
Singapore	134.1	155.8	107.7	34.1	55.8	7.7	14,741	20,720	2

The analysis of the deviations obtained shows that the growth rate of the number of cases over four months was 871.2% in Ukraine and 134.1% in Singapore. The increase in the number of cases by country in absolute and relative terms, accordingly, amounted to 331,091 people or 771.2% (Ukraine) and 14,741 people or 34.1% (Singapore).

The growth rate of the number of recovered people during this period was 801.2% in Ukraine and 155.8% in Singapore. The increase in the number of recovered people by country in absolute and relative terms, accordingly, amounted to 135,678 people or 701.2% (Ukraine) 20,720 people or 55.8% (Singapore).

The growth rate of the number of deaths during this period was 618.9% in Ukraine and 107.7% in Singapore. The increase in the number of deaths in absolute and relative terms across countries, accordingly, amounted to 5,817 people or 518.9% (Ukraine) and 2 people or 7.7%.

Such a tendency indicates that over four months the number of cases in Ukraine is 22.5 times higher than the number of cases in Singapore. At the same time, the number of recovered in Ukraine exceeds Singapore only 6.5 times. And the number of deaths in Ukraine is multiple times higher than that in Singapore: 2908.5 times.

To analyse the overall dynamics of the COVID-19 pandemic in the world in 2020, as well as the comparative characteristics of the spread of infection in individual countries, we add the indicators of the country in which COVID-19 cases were first recorded – China.

Figure 1 shows the general dynamics of the COVID-19 pandemic in the world, Figure 2 – in Ukraine, Figure 3 – in Singapore, Figure 4 – in China, in 2020.

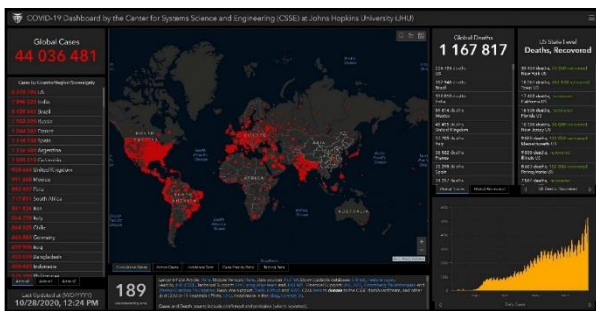


Figure 1. General dynamics of the COVID-19 pandemic in the world (for October 28, 2020). Courtesy: John Hopkins CSSE (<https://gisanddata.maps.arcgis.com>).

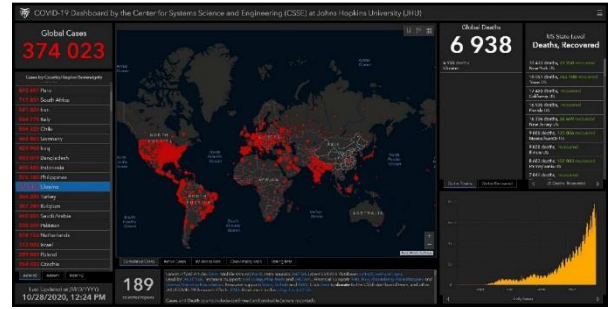


Figure 2. Dynamics of the COVID-19 pandemic in Ukraine (for October 28, 2020). Courtesy: John Hopkins CSSE (<https://gisanddata.maps.arcgis.com>).

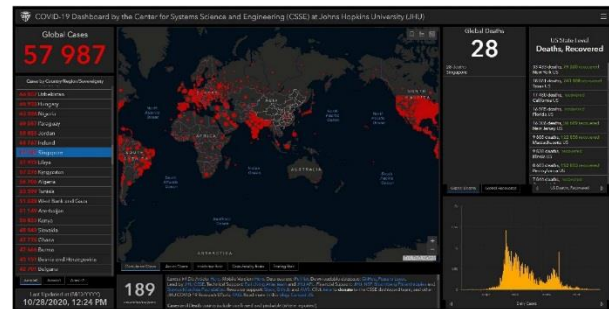


Figure 3. Dynamics of the COVID-19 pandemic in Singapore (for October 28, 2020). Courtesy: John Hopkins CSSE (<https://gisanddata.maps.arcgis.com>).



Figure 4. Dynamics of the COVID-19 pandemic in China (for October 28, 2020). Courtesy: John Hopkins CSSE (<https://gisanddata.maps.arcgis.com>).

The comparative analysis of graphs showing dynamics of the COVID-19 pandemic in Ukraine and Singapore, as well as China, gives us an idea about instability of this process (Figure 5).

The dynamics of indicators (the number of cases, recovered, deaths from COVID-19) in these three countries dated October 28, 2020, is presented in Figure 6.

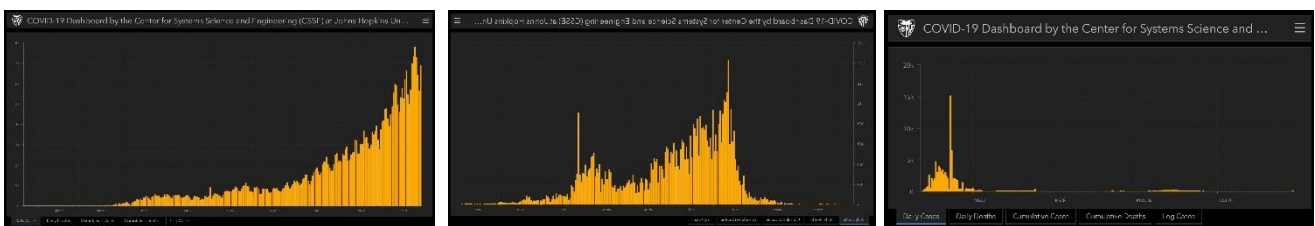


Figure 5. Dynamics of the COVID-19 pandemic (a – Ukraine, b – Singapore, c – China (for October 28, 2020). Courtesy: John Hopkins CSSE (<https://gisanddata.maps.arcgis.com>).

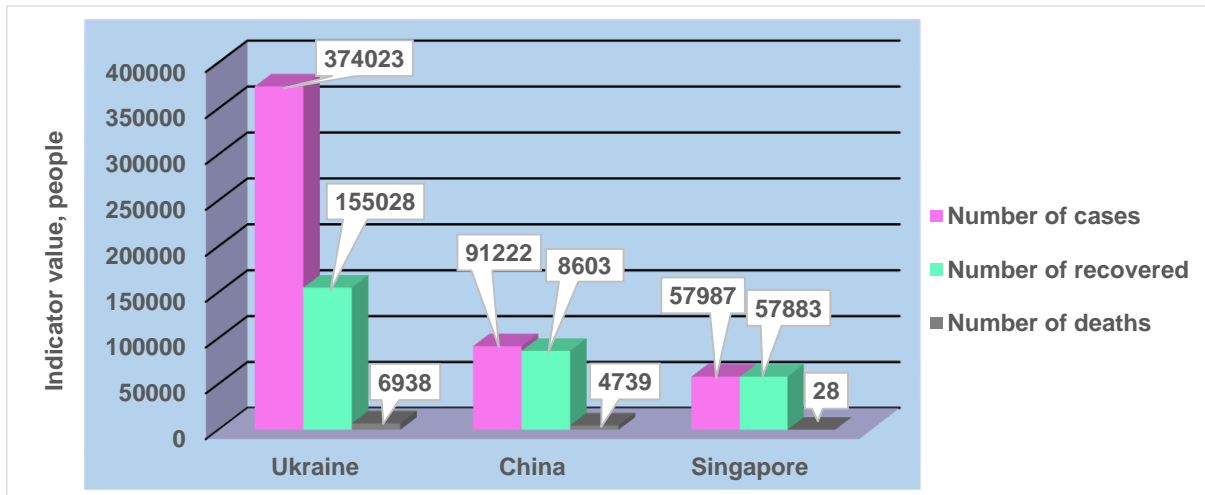


Figure 6. Dynamics of the COVID-19 by indicators: Number of cases, Number of recovered, Number of death in Ukraine, China, and Singapore (for October 28, 2020).

In Ukraine, the number of cases was 374,023 people; the number of recovered was 155,028 people, which in relative terms corresponds to 41.45%; the number of deaths reached 6,938 people or 1.85% of the total number of cases.

In China, the number of cases was 91,222 people; the number of recovered was 86,031 people, which in relative terms corresponds to 94.31%; the number of deaths reached 4,739 people or 5.20% of the total number of cases.

In Singapore, the number of cases was 57,987 people; the number of recovered was 57,883 people, which in relative terms corresponds to 99.82%; the number of deaths reached 28 people or 0.05% of the total number of cases.

Summing up, Ukraine has the largest number of COVID-19 cases (more than 4 times in comparison with China and more than 6 times in comparison with Singapore). As a result, we can assume a significant increase in the number of deaths among the sick population. In China, the factors influencing the pandemic are under control, despite the average level of recovered and the higher level of deaths among these countries. In Singapore, the factors influencing the pandemic are being kept under control to the greatest extent, which is characterized by the highest number of recovered, the lowest number of cases and the lowest number of deaths.

To determine the influence for the main factors on the number of recovered and deaths of the population with COVID-19 in 2020, we draw a diagram of the ratio of these indicators for three countries (Figure 7).

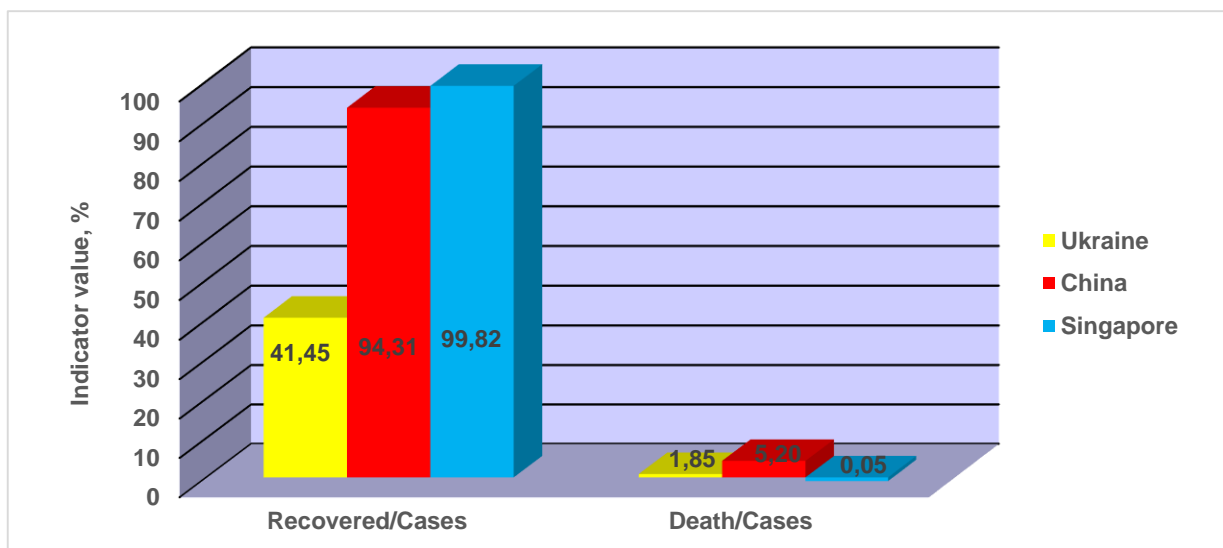


Figure 7. The ratio of the Number of Recovered to the Number of Cases, and the Number of Deaths from COVID-19 to the Number of Cases in Ukraine, China, and Singapore (for October 28, 2020).

It testifies the possibility to influence the speed of the COVID-19 pandemic spread.

In my opinion, there have been the following main factors: government measures, orientation at

confronting COVID-19 spread, resources of the national health system as well as responsibility of the population of the country for prophylaxis and counteraction to the disease spread.

Discussion

In the face of the real danger we begin redefining conceptual bases of mankind, nation, state, family, individuum in dialectics: democracy – authoritarianism, technocracy – humanism, freedom of movement – observation, good health – disease etc.

In this regard, I would like to note the work by Kummitha (2020), who compared the Chinese government “techno-driven approach” to the Western governments “human-driven approach” used to control the COVID-19 pandemic. The author noted that Western governments were using technologies to inform, persuade and attain consensus instead of using them to discipline citizens.

Pirtle’s work (2020) deserves attention, in which racial and socioeconomic inequities within the COVID-19 pandemic in the United States have been studied. In this regard, it should be noted the action of some officials, who, realizing the need for urgent action, sign Executive Order to protect immigrant and refugee communities during COVID-19 (Executive Order, 2020). In this case, we see an example of urgent and adequate measures by the US city authorities caused by COVID-19 in relation to the most vulnerable part of the population. As practice has shown, immigrants and refugees are a high risk group, and ethnic minorities “are a third” of patients infected with COVID-19 (Butcher & Massey, 2020; Croxford, 2020). Jon (2020) studied the issues of social justice and the different approaches of governments and city authorities to migrant workers, foreign students, and others. Public health policy and opportunities for older people in Italian nursing homes was described in the publication by Trabucchi and De Leo (2020). Wenham, Smith, and Morgan (2020) explored policies and public health efforts, as well as gender characteristics of vulnerability and mortality from COVID-19.

An important factor and an adequate response is the creation of target groups under the governments of countries prone to the pandemic, as well as women’s representation in national and global COVID-19 policy spaces, such as in the White House Coronavirus Task Force (Press Trust of India, 2020).

I believe that we will still have to get deep reconsideration over the measures that have been taken or must be taken by the governments of different countries while fighting the pandemic spread, both on the territory of a certain country and in the world scope, as well as personal responsibility of the population to

defend themselves and their surrounding from catching COVID-19.

October 4, 2020, scientists Kulldorff, Gupta, and Bhattacharya (2020) released “The Great Barrington Declaration”, that assumed the so-called “Focused Protection”. The authors criticized the current lockdown policies, which in their opinion: “... are producing devastating effects on short and long-term public health”. Scientists claim that “The most compassionate approach that balances the risks and benefits of reaching herd immunity, is to allow those who are at minimal risk of death to live their lives normally to build up immunity to the virus through natural infection, while better protecting those who are at highest risk” (Kulldorff, Gupta, & Bhattacharya, 2020). We can discuss for a long while the human nature of this declaration, norms of social responsibility etc. But the undeniable fact is that the world has appeared to be not ready to new conditions. All countries have suffered: both with a high and low economy. Health systems of many countries have experienced a serious trial concerning efficiency of their activity, whose performance is indicated by the death rate of the population.

I have not made it a point of this article to research and substantiate statistically the data about COVID-19 spread in different countries, but instead have limited purposefully the methodology of this publication by the complex of theoretical and empirical methods for studying indicators for the dynamics of the COVID-19 pandemic in Ukraine, China, and Singapore. Nevertheless, it was enough to identify without any difficulty the difference in indices of infection, recovery and death of the population provoked by COVID-19 in these countries for 4 months of the year 2020.

In order to understand the reasons of such dynamics let us consider this situation in one of the cities of Ukraine – Kharkiv. On the 31st of October, 2020 the number of those who caught the disease in the city of Kharkiv, constituted 36,297 people. The quarantine of the maximum level was officially introduced in the city at that time. Medical establishments are working at the pick of their capacities, city hospitals are overloaded with the infected people by COVID-19.

The situation of COVID-19 spread is even worsened by recklessness of the municipal authorities, that not only are holding general local elections for the authority bodies at this time, but also clean the city streets, squares and parks using air-sweepers (Figures 8, 9).

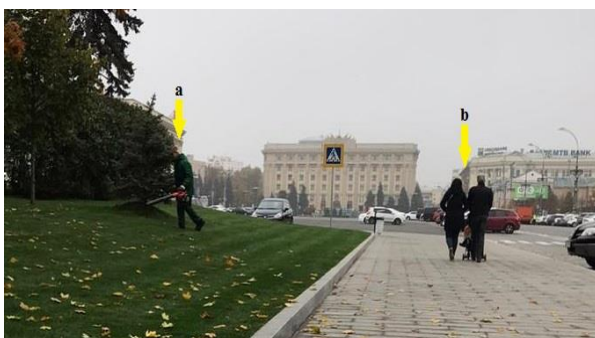


Figure 8. Ukraine, Kharkiv, the city’s central square (October 31, 2020): a – Cleaning of sidewalks and lawns; b – Pedestrians with a child in a stroller. Photo by the author.



Figure 9. Ukraine, Kharkiv, the city’s central park (October 31, 2020): a – Cleaning of park alleys by a communal service worker; b – Pedestrians; c – Child. Photo by the author.

At the same time the majority of citizens do not follow the mask regime; visit catering establishments, parks, play-grounds; children of a primary school age are allowed to attend classes at school.

Let us remember the events in the town of Wuhan (China) at the beginning of 2020 for preventing COVID-



Figure 10. China, Wuhan, the Huoshenshan Hospital (February 2, 2020). Courtesy: XinhuaNews (<http://www.xinhuanet.com>).

Returning to Singapore, I should note that issues of responsibility of the population for prophylaxis of infectious diseases have been regulated for many years in the country at the legislative level. It is forbidden there not only to throw litter in the streets but also to spit and feed birds. The latter prohibition seems to be inhumane and even absurd at first glimpse. But it is stipulated by the fact that while pigeons are being fed, they can pick up dust by their wings at squares (Figure 12).



Figure 12. Information notice on prohibiting activities in Singapore. Courtesy: <https://www.reddit.com>

In my opinion blowing dust at squares and in the streets of the city which is overloaded with infected people is not the best idea for cleaning it. Hopefully it is just a stupid action of utility services. Still I have not been allowed by a moderator to publish my electronic petition on the site of the municipal authorities, concerning prohibition of such kind of cleaning squares and play-grounds for over six months. Thus since Ukraine is not

19 spread, in order to make a clear comparison. There were built specialized hospitals (Figure 10) in a matter of days, special technical equipment, mist cannon trucks and street sprinklers (Figure 11) were used for disinfection of the city streets, the population was informed etc.



Figure 11. China, Wuhan, operations on public areas with mist cannon trucks and street sprinklers (February 3, 2020). Courtesy: (<http://www.xinhuanet.com>).

Singapore and spits on the street sidewalks are considered to be ordinary matters, it is difficult to imagine how many people could be infected by workers of the utility services who were blowing leaves, litter and dust around the city.

So different approaches in policies, health system resources as well as responsibility of the population of the country in the period of the pandemic, give quite different results. On account of this we cannot state that for example the death rate from COVID-19 constitutes 1-3%. It is the same as to speak about an average temperature of patients in hospital. Thus, for one country the number of those who have died, constitutes 1.85% from the total number of people infected by COVID-19 (Ukraine), but for the other country it makes 0.05% (Singapore), that demonstrates the death rate which is by 37 times higher in Ukraine than in Singapore (see Table 3). These data also indicate the possibility to reduce the number of fatal cases from COVID-19.

We should learn our lesson from the current situation, become stronger and wiser. Now people have realised better the importance of the social health and individual health culture as an effective security measure from COVID-19.

I researched social health as an integral part of a personality health culture 16 years ago by describing the phenomenon of "Health culture", having substantiated theoretical, methodological and methodic aspects of the phenomenon "Health culture" (Melnyk, 2004; 2005). At that time some sceptics considered this idea to be artificial as they still restricted their theories by health components: physical, mental, spiritual. It may seem sad but namely the situation with COVID-19 has shown an important role of social health, as for an individual person in his connection with the surrounding world and the mankind on the whole.

For already many years (Melnyk, 2002; 2007; 2010; 2012; 2017; Melnyk & Sviachena, 2000) I have been stuck to the viewpoint that the most efficient means of preserving and improving health of the population is

formation of health culture by children starting with a primary school.

By forming children's health culture, we form the grounds for a cultural and healthy way of life, including the ability to resist the threats from infectious diseases. A number of psychic, social, demographic and other problems which exist in the society, could be eliminated by propaedeutic of health culture at a primary school.

The situation provoked by the COVID-19 pandemic has given us the possibility to trace our weak points and mistakes in the systems of education, health care and other fields, as well as to reconsider the role of the state and society at this difficult time.

It may seem to be a paradox, but healthy people and those who are beyond the risk groups, have become prisoners of the situation and thus have been punished for it. They have been forced to social distancing, isolation, various taboos and obligations, such as wearing masks, restrictions in public transport, prohibitions on attending educational institutions, as well as establishments providing social services and defense, catering places, sports and play-grounds etc.

Figures 13–14 illustrate measures that were taken by the government during the quarantine (from partial restriction to full prohibition on certain actions), and also dynamics of their cancel on the territory of Ukraine in 2020.

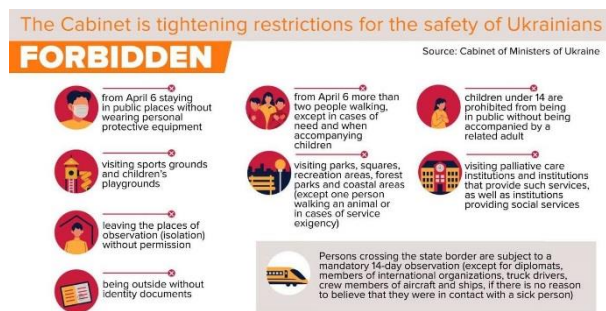


Figure 13. Measures of Confronting COVID-19 Spread on Territory of Ukraine (introduced since April 6, 2020). Courtesy: <https://en.hromadske.ua>



Figure 14. Stages of cancelling quarantine restrictions on territory of Ukraine (May–June, 2020). Courtesy: UkraineWorld (<https://ukraineworld.org>).

The restrictions were even more considerable in a number of EU countries: from curfew time (Italy, Spain, the Czech Republic, Hungary and others) to a work stoppage of the majority of enterprises (Italy, Spain).

One of the problems of the pandemic policy is that, as a rule, it is based not on evidence, but fear for a worse course of events. In such a situation the measures taken by the government or municipal authorities can do more harm than good.

A culturally healthy person should not suffer in this situation not least because he/she is the one who is able to act in this situation and change it for the better. The government policy should serve for the people's sake as the highest value, but not as a tool for manipulating social opinion through mass media. Let us not forget that the mankind has experienced catastrophes during the whole history and has successfully overcome them.

Conclusions

Infectious diseases do not differentiate people by their age, gender, race or nation. In the epoch of globalisation it is not relevant any more to flaunt with slogans about the national health, today health is becoming international.

The infection which appeared in one country can transform into a global world problem in a matter of seconds. Neither closing borders, nor blocking, nor distancing, nor masking can produce any resistance effect on the virus spread globally.

Scientists-enthusiasts are proposing their pacts and declarations to the world community, while governments are developing their state and national programmes that can be applied only locally or in a low-efficient way, taking into account the international level of the problem. The general policy of governments remains uncertain in case of future emergencies such as pandemics or global catastrophes.

Hopefully the current pandemic is not a predecessor of even more far-reaching future worldly crises, for example related to a climate change, food or energy problems, migration...

That is why it is extremely important to pay attention to national and global policies, development of cooperative international programmes of coordination in emergencies and restoration after them.

Responsible policy and practice instead of manipulation and bureaucracy are able to protect people of the risk group and create favourable conditions for life activity of those who do not belong to this group.

State governments that do not take into account all factors of the spread of infections and do not take adequate countermeasures endanger the health of their citizens and are responsible for the safety of the world community.

The modern civilisation is capable of overcoming this difficult period in its history. The only question left is at what cost it will be done and what conclusion we will make.

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LETTER TO THE EDITOR

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An Invisible Virus Has Made Visible Many Underestimated Problems in Medical Education and Research

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Dear Editor,

In days of Global and national stress-tragedies, when what we considered to be a stable value is shaken, our eyes turn to a critical rethinking of the past. Today's reality needs more than ever not only urgent practical procedures, restrictions, etc., but a very deep and unified concept and strategy based on sound philosophy and analyses.

Evidence-based practical action is the philosophy of our behavior today. But do we have enough evidence and what are they? This is the question that still has no definite answers.

Medicine is rightly proud of many of its achievements. But today, her pride is overshadowed by her inability to defeat a microscopic invisible enemy of human health. We must be honest: it turned out that medicine is strong in new modern technologies, but it is powerless to manage an invisible enemy, massively threatening the health of the Planet. It turned out that medicine is poorly prepared for surprises – not only to meet them, but also to anticipate them.

Medicine is an art of probability and it must permanently prove the most probable predictions and the most effective actions.

Now, by accident, the means used are mainly from the middle of the twentieth Century, from this classic epidemiology that we had forgotten. But now we are not the twentieth Century, and the media constantly suggests to us as fateful paths “social distance” and “social isolation”. Are these the main or only means of saving the population in the 21st Century? And how will a society live through social isolation?

The wise people have always given the formula “We are all in God's hands”, in crisis situations. This formula actually reflects a fundamental natural law – only the great Nature, of which we are a part, will save us. Even the great Hippocrates advised the doctor: “Support the forces of nature”.

And against viruses, the greatest power of Nature is in ourselves – in our immune system. Yes, but caring for the nation's immunity would be an even more difficult task for politicians and medical professionals, because it implies larger measures for a rational style and standard of living. But how can this happen?

Preventive medicine has been on the periphery of the minds of health policymakers, in recent decades. It is formally mentioned in International (World Health Organization & United Nations Children's Fund, 2018) and national strategies, but it is not a de facto priority and pales in comparison to the dictates of clinical medicine. The message of the famous Russian surgeon Nikolai Pirogov that says “the future belongs to preventive medicine” (Komarov & Fishman, 2019; Pirogov, 1961), wait for the future, yet.

In the modern research and especially in medical education is extremely underestimated the discipline of epidemiology of infectious diseases, sunk in the shadow of the so-called epidemiology of non-communicable diseases. For 4-5 decades, physicians have been taught that infectious diseases as a cause of death have gone down in history – which was a fact for some time, but now life tells us that history is a cycle, that medical science is far from health prognosis.

Future doctors are extremely limited in their training and education on preventive and health-organizational disciplines such as health policy and management, promotion of health, public health culture and health behavior, hygiene, immunology, nutrition, medical globalization, medical prognosis etc.

Obviously, medical science and education also need accelerated creativity and development of new medical disciplines and directions, along with modern technologies.

Against this background, it is not surprising that worldwide there is no unified proven concept of an active offensive strategy in the fight against viruses in general. The big hope is for the vaccines now! But we already lost more than 1 397 139 lives, out of 59 204 902 confirmed cases of COVID-19, reported by WHO Globally, so far (25 November 2020) (World Health Organization, 2020), due to the small creature and we continue loosing every minute more and more.

It is quite difficult to predict what future lessons the current pandemic with the COVID-19 virus will give us. But we will allow the conviction that two lessons are already visible today:

1. The need for an urgent cardinal revolution in the scientific and educational sector of medicine is already felt. Recent research in this area makes this belief even more grounded (Melnyk, Pypenko, & Maslov, 2020).
2. Global awareness of the need to urgently mobilize the entire scientific medical potential of the Planet to discover a new preventive and curative era in the fight against viruses, similar to the victory over smallpox, malaria, etc., but especially similar to the antibiotic era created by Fleming in 1928.

Escape and hide from viruses should be replaced by a successful victory over them.

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LETTER TO THE EDITOR



COVID-19 Worries and Opportunities

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Keywords: COVID-19, pandemic, psychology, health, social distance**Copyright:** © 2020 Sabra Zizi E. I. Published by Archives of International Journal of Science Annals**DOI and UDC** DOI 10.26697/ijsa.2020.2.6; UDC 159.9:316.6:614.441**Conflict of interests:** The author declares that there is no conflict of interests**Source of support:** This study did not receive any outside funding or support**Information about the author:** Sabra Zizi Elsayed Ibrahim – <https://orcid.org/0000-0001-8329-9615>; zss11@fayoum.edu.eg; Doctor of Philosophy in Psychology, Associate Professor, Department of Psychology, Faculty of Arts, Fayoum University, Fayoum, Egypt.**Dear Editor,**

With the middle of March 2020 the news of breakout of the pandemic had been assured around the world, spreading the uncertainty and worry in a very ambiguous atmosphere all over the world (World Health Organization, 2020b). World health organization with the group of 20 (G-20) and United Nations (UN) at 26 of March 2020 committed collaboration in facing the pandemic (Khashaba, 2020).

All countries including Egypt worked according to the recommendation of the World health organization plan in facing this pandemic, taking into account the safety rules in all sectors of the society (World Health Organization, 2020a) up to date efforts to help control and manage the COVID-19 and NCOVID-19. As a part of Information and Decision Support Center – Egyptian Cabinet keenness on spreading public opinion awareness, the center is publishing a newsletter about the implications of the new Corona-Virus, with the purpose of presenting the latest updates on the international level, and the most important measures and initiatives that can be of benefit in health sector, education sector, professions and social sectors too (Information and Decision Support Center System, 2020) side to side with the Regional and international efforts (Madoui & Bendjeroua, 2020; Namsolleck & Moll, 2020).

Although of having hard time and big challenges to protect ourselves and loved ones, it is always possible to keep a positive mindset and stay resilient. When we look back to the last eight months we will find out how every one of us had the opportunity to test his will power to continue our achievements in education, profession, social, health fields. We could notice how connected is world and how we are able to manage issues as one team. We can notice the millions of creative plans and problem solving techniques to keep our daily life

activities with the most balanced way. We have the Right to feel frustrated, feel irritated or depressed during the uncertainty time, and the facts proved that we can manage things well in spite of that. The impact of medical and psychological support in the pandemic COVID-19 situation was studied (Melnik & Stadnik, 2020).

The most important part is that you have the right to get help dealing with these feelings, and enhance your immune system by keeping your positive mindset. Some psychological tips could help reducing your hyper vigilance and help you enjoy your life. Simply, instead of thinking of what you cannot do think of things that you can do. First thing to do is not isolating yourself, meet people and keep the social distance, wear masks, and enjoy laughing together in the fresh air. This is going to make you more resilient, isolating your self could be harmful to you and your health. Resilient people try to reevaluate the situation and make the positive new list of goals. Resilient people are flexible and it helps to modify and comfy your expectations to make you feel better about what is available and how it could be done (Naseem & Khalid, 2010).

Second, plan your day a head and keep a schedule to follow. Having a “to do list” help you setting your anxiety aside and feel the power of productivity. try to make your schedule fit the whole week achievements, or even set a month plan a head, make it an obligation to yourself, don't forget to have fun achieving your goals. Third, stay connected with your social network, connectedness is cure and keep you feel well. All paths are accepted for connecting with others, including texting, calls, tele-conferences, sharing experiences, co-planning activities, the list is open to your creative mind. Life is generous and always gives us the opportunities to grow wisdom and more acceptance and commitments to stay efficient and happy at the same time.

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REVIEWS

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Article Review “Sensorimotor Criteria for the Formation of the Autonomic Overstrain of the Athletes’ Cardiovascular System”, authors Romanchuk O. P., Guzii O. V.

Polianska O. S. (Reviewer)¹

¹ Bukovinian State Medical University, Ukraine

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Review:

The paper of Romanchuk and Guzii on “Sensorimotor criteria for the formation of the autonomic overstrain of the athletes’ cardiovascular system” has been published in the International Journal of Science Annals, Vol. 3, No. 1, 2020.

The problem of diagnosing states of fatigue, cardiovascular overstrain and overtraining is important in the practice of current athletes examinations.

This allows you to detect early signs of pathological states, which do not only limit the ability of sport perfection but also can lead to the development of critical states.

The authors introduce into the training process of highly qualified athletes methods of spiroarteriocardiography (SACR) and computerized motion meter (CCM), which are express multifunctional methods of studying the cardiorespiratory and sensorimotor systems and can be used in the “field”.

Algorithm for determining the autonomic regulation overstrain of the cardiovascular system, based on the well-known method that was suggested by Shlyk, is especially noteworthy.

Based on determining the type of the heart rate autonomic regulation before, after and the next morning after training, the authors identified options that clearly characterize the autonomic regulation overstrain by sympathetic and parasympathetic type.

It is shown that such options occur in about 10% of cases among highly qualified athletes.

Namely, they are found in 19 out of 202 studied people. Of course, it would be appropriate to conduct other instrumental, hematological and biochemical studies that would characterize the proper humoral status of athletes.

However, it should be recalled that the studies are conducted in the “field”, when the use of any invasive research methods is extremely limited.

Taking into account the aim of the work, the authors analyze the indicators of sensorimotor function, which are obtained simultaneously with the determination of autonomic regulation of heart rate.

The used device (computerized motion meter) is valid for determining the time of motor reactions, which has a strong enough confirmation in the scientific publications of other authors.

The authors analyze the indicators of switching central settings, on the importance of which the author focused in previous publications, out of the 28 indicators that characterize motor reactions.

Having used non-parametric methods of statistical analysis, the authors prove significant differences between these indicators, which are obtained while testing with the right and left hand.

It is shown that the dynamics of their changes in athletes with overstrain of an autonomic regulation of the cardiovascular system by sympathetic and parasympathetic type has a characteristic asymmetry, which, according to other authors, may indicate the peculiarities of ergotropic and trophotropic processes in the body.

The latter is important in the diagnosticating of fatigue, overfatigue, overstrain, as well as overtraining. I think that further research in this direction is prospective for the early diagnosis of such states in the currently examinations of athletes.

Despite the fact that the authors do not divide athletes with consideration to kind of sport, which is certainly important for the formation of sensorimotor reactions, it should be noted the importance of this work, the results of which show the relationship between autonomic regulation of the cardiovascular system and the mechanisms of the central movement control.

The paper is written in a scientific language, and at the same time, it is not overloaded with highly specialized terminology.

It would be appropriate to use newer literary sources. However, it is understandable that the authors wish to focus on the significant results obtained by using other modern methods, as well as the results obtained when using this device in earlier studies.

The paper is compiled on a high scientific level and is of high theoretical and practical interest. The obtained results can be used by doctors of sports medicine and coaches.

Reference

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REVIEWS



Article Review “Phenomenological Perspective in Researching Immigrant Children’s Experience”, authors Batuchina A., Straksiene G.

Alaverdov E. V. (Reviewer)¹

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Review:

The article of Batuchina and Straksiene “Phenomenological Perspective in Researching Immigrant Children’s Experience” has been published in the International Journal of Science Annals, Vol. 2, No. 1-2, 2019.

Migration became one of the most acute problems of the modern world, which involves both political and social spectrums and became a very complex problem, which is very difficult to study from the Phenomenological Perspective. Everyone is well aware that to manage such large surges of migrants is practically impossible, as, for the scientists, they even do not have a united approach to the research of this unsolved phenomenon.

For certain reasons people, in most cases, families have to change their dwelling spaces, to move from one country or city to another. Without even considering the physiological stress of the family members, especially children or elderlies. Among the many problems, which migrants face in a host country the most acute one is an adaptation. There is a mistaken perception that children adapt to every novelty and situation easily than adults, however, in this regards children are the most vulnerable. Here the problem is that in most cases, children are not even listed, since parents are concerned about searching for jobs and finding the ways to adapt to a new space.

The authors explain that the meaning of migration is minimized for children and that adults do not pay attention to it. However, the experience of grown-ups draws significant attention.

The authors pay attention to the moment that children leave all their belongings and move to a new unknown country where they face difficulties.

Despite that, the paper is well developed and the conclusion reflects the results of the study; however, it speaks only about the problem and does not give any recommendations, how to solve it. It would be good if the author gives suggestions and recommendations about what can be done to mitigate the situation to reduce the children's stress. I think after the conclusion there should be a small part of suggestions and recommendations. Moreover, it would be better if the author uses the Comparative research method, which is exactly used for cross-cultural studies, as the issue of migration straightly deals with cross-cultural studies. Besides, I would like to highlight that while studying the problem of child migration the authors did not consider the cultural or religious factors. As I understood from the discussions, they conducted their research among the migrants within Europe, or labor migrants from the Post-soviet countries since they do not even mention the problems of cultural adaptation. It would be good if they continue their study among the children migrants from the Middle East. After the Arab Spring, Europe continues to receive a large number of Muslim migrants, with very different culture and worldview. Europe indeed does its best to reduce the numbers of newcomers through the strict border control and tightening the refugees and asylum seekers Packages. However, the problem is still acute, in this regard, the most important is that, besides the difficulties of traveling and adaptation, at the same time the Muslim migrants face harassment from the host society, and here the children since they are undefended again appear in a very vulnerable situation. They not only have trouble in a new environment but they feel unwelcomed and unsecured in the context of cultural and religious differences.



Thus, it is worth saying that the experience of migrant children requires a thorough study. In this case, the main objective of Researching Immigrant Children's Experience should be, firstly the awareness of their psychological situation and conditions, and the development of effective ways to their adaptation and integration to the new environment, considering their cultural aspects.

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