

Original article:

A DESCRIPTIVE INSTITUTIONAL STUDY TO ASSESS AND IMPROVE MOTIVATION LEVEL OF STUDENTS WHILE USING ONLINE LEARNING PROGRAMS AT NIS (Chemistry and Biology), SHYMKENT KAZAKHSTAN

Serik Zharmukhanbetov¹, Dr Kirti Shekhawat², Nassiba Absadykova³, Baiseit Shyngiskhan⁴, Dr Rekha Acharya⁵, Chandan pal Singh⁶

1= HOD(Physics), NIS of Chemistry and Biology, Shymkent, Kazakhstan.

2= Assistant professor, Community Medicine, SP Medical college, Bikaner, Rajasthan, India.

3= Physics Teacher, NIS of Chemistry and Biology, Shymkent, Kazakhstan.

4= Physics Teacher, NIS of Chemistry and Biology, Shymkent, Kazakhstan.

5= HOD, Community Medicine, SP Medical college, Bikaner, Rajasthan, India.

6= Physics Teacher, NIS of Chemistry and Biology, Shymkent, Kazakhstan and corresponding author (chandanengg@gmail.com)

ABSTRACT:

BACKGROUND: Motivation is an orientation towards learning. Motivation in the learning process fosters strong and flexible critical thinking skills. Therefore, it impacts how likely a student is either to give up or push forward and how thoughtful their reflection on their learning will be. Online learning and teaching is the new setting for many institutes and students lack motivation. This prospective institutional cohort study was conducted at NIS, Shymkent, Kazakhstan among 36 Grade 12 students during Dec 2020-Jan aimed to assess the impact of online teaching psychologically, daily life, and social communication during distance learning and how to motivate students.

RESULTS: Applying different teaching methodology, planning lesson plan that focuses more student's engagement, providing better communication between classmates and teacher and creating an online platform like traditional lesson gave booster in term of student's motivation distance learning.

CONCLUSION & RECOMMENDATION: Best practices in the online lesson can motivate students toward online learning.

KEYWORDS: Teaching methodology, teaching online, motivation, creativity, leadership, Student engagement.

“The impact of the pandemic on people's mental health is already extremely concerning. Social isolation, fear of contagion, and loss of family members is compounded by the distress caused by loss of income and often employment.”

Dr. Tedros Adhanom Ghebreyesus Director-General, World Health Organization

INTRODUCTION:

The outbreak of coronavirus disease 2019 (COVID-19), which started in China in December 2019, is a catastrophic calamity that has spread across the entire world at the speed of light. Public health measures have been implemented in almost every country to contain the disease's transmission [1]. The Centres for Disease

Control (CDC) advocates that it is critical to recognize stress symptoms resulting from the lockdowns and the disease itself. During outbreaks of transmittable diseases such as severe acute respiratory syndrome (SARS) [2–4] and equine influenza [5], damaging psychological implications have been documented [6,7]. It is apparent that the unswerving psychological and social impacts of the pandemic are inescapable, and it is critical to take steps in building resilience and coping with such damaging consequences of a pandemic [8]. As suggested by [9], it is a timely call for studies investigating the impact of COVID-19 on students' mental health, interest in online learning, and the need for immediate interventions.

According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the pandemic has interrupted the learning of more than one billion students in 129 countries around the world [10]. Many education institutes worldwide have moved to emergency remote teaching (ERT) via online platforms, further inducing anxiety among the students. Studies on the effect of COVID-19. Thus, this study hopes to extend the existing literature by empirically evaluating the impacts of the COVID-19 pandemic and the subsequent lockdowns on the socio-psychological well-being, anxiety, and less interest in online learning among students, during the heights of the pandemic and lockdown.

We hope the findings of this study could assist schools and teachers in Kazakhstan in forming a theoretical basis for determining psychological well-being and identifying evidence-based psychological intervention practices to assist the students in times of similar pandemics in the future. It should provide guidelines for policymakers and teachers to create possible mechanisms to limit the effect and motivate students in the online learning process. Covid-19 pandemic has caused an unprecedented change in education.

In Kazakhstan, COVID-19 was first detected in March 2020(11). A sudden and sharp upsurge in local cases and within weeks, Country imposed lockdown and along with many organisation Schools underwent in Distance learning mode. The unprecedented rules had significantly altered the lifestyles and social relationships between the people and had presumably developed deep levels of anxiety along with the fear of contracting the infection. Although measures are taken primarily reduced the outbreak of COVID-19 in the Country, measures such as lockdowns, strict isolation, social distancing, remote teachings, and uncertainty and delays in commencement of schools, colleges, and universities have significant implications on students' socio-psychological well-being and anxiety levels.

NIS schools also underwent to complete remote teaching and this time was challenging for students as well as the teacher to engage students in online learning, motivating in the online learning process, and intervene in psychological difficulties.

All the schools in Kazakhstan and other countries had to find all the possible solutions to convert their teaching and learning to remote online options. According to the research, distance learning with the help of online boards is supposed to catch students' attention and make them interested and motivated (12). Moreover, kids can create their materials themselves and share them with their classmates. Sometimes it is the only way to keep them motivated and to prevent them from leaving "boring online lessons". It also has a great educational effect on those students who struggle while using traditional textbooks and misunderstand the tasks. Besides, online Learning Technology (LT) helps them to develop the skills of collaboration, negotiation, and leadership which is especially important in international communication.

OBJECTIVE:

The main objective of this study is to determine the methods of effective online teaching and learning process among NIS students in Shymkent so they feel highly motivated. We also want to identify potential stressors and issues among the students during this pandemic time. We suggest efforts like these should be encouraged.

This is a survey for the basis of writing a research paper:-

How to motivate students in online learning?

METHODOLOGY:

In NIS (Nazarbayev school, Shymkent) each class is equipped with a projector, a smartboard, high configured computer, and audio-video media which enables each teacher to conduct collaborative frontal work so that students would be able to participate in doing tasks on their electronic devices and board. Students are always well engaged in learning activities and using effective lesson plans, teaching and learning is always a smooth and well-developed system. But the spring 2020 “brought a sudden shift for teachers and their students into an online setting” (13). During the quarantine, the school practiced teaching via Microsoft Team and other boards in order to involve kids in online classroom activities, including self-checking tasks. For many teachers it was their first experience, so they had to learn immediately and it was frustrating trying to help students in this way. “Teaching an online course requires different methods from the traditional classroom. So teachers must adapt or develop their skills to the online learning environment” (14).

There are some findings- **Why our school children were less motivated to study online?**

- They are bored.
- They are afraid of making mistakes.
- They use their devices to play games and to communicate with their friends only.
- They don't like online studying.
- They are too young.
- They are distractible.

Research studies show that computerized lessons enhance learning in less motivated students. Nevertheless, they might be bored while sitting in front of the screen for 40 minutes(one lesson) with a break of 5 minutes after 20 minutes. So, with the help of videos and other online activities, distant lessons become “student-centered and offer the possibility of new classroom management and the new relationship between teachers and learners” (15).

To evaluate the level of motivation and Anxiety among NIS Chemistry and Biology, Shymkent students throughout the height of COVID-19 and the online learning. An exploratory study using a cross-sectional online survey was conducted. To ensure a well-spread pool of 36 respondents, the participants were sampled from different-2 groups.

A survey invitation through Microsoft Forms was sent to students via MS Teams, with periodic reminders. Participation in the survey was voluntary and the students' consents were obtained before the start of the survey. The participants were assured of the confidentiality of their responses. The research instruments used in this study included basic demographics; gender, age, level of study. In this survey, the Motivation level in online learning was assessed using a motivation and anxiety questionnaire. We used some questions from Zung's SAS. In this study, no differentiation was made between emotional and physical symptoms. For Anxiety level,

respondents had to choose between “Not at all stressful, Somewhat stressful, Moderately stressful, and Extremely stressful.

For a better understanding of the motivation index, we used survey questions and respondents had to choose between “ Strongly agree, Agree, Disagree, and Strongly disagree”.

Two survey question was related to what students learned and spend time during Lockdown.

In the Microsoft form, there was an open-ended question where the students were asked to write their main concerns or comments in this testing time.

We tried to analyse how the students perceive pandemic and relate to the level of stress? How did they compare online learning and traditional school furthermore how the learning process affected by online learning?

It is faced by students mostly because of the pressure of being in a new environment and a strong desire to perform well. Students show a passive attitude in their academics such as lack of interest in work, poor performance in examinations, and a disturbed routine (17,18).

The perception of stress is affected by the changes occurring in an individual's life, the ability of an individual to deal with problems, and daily hassles. (19,20).

Due to this COVID-19 pandemic, traditional classroom learning is affected drastically. To overcome this crisis many countries across the world are adopting E-learning platforms for students (21,22).

Below is a set of questions were asked for analysing students' behaviors and motivation in online learning.

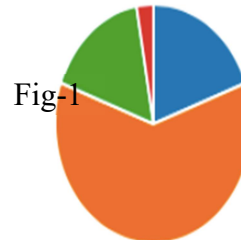
1. How do you perceive the risk of contagion during this period of Covid-19 Pandemic?
2. How do you perceive the condition of social isolation imposed during this period of Covid-19 Pandemic?
3. How do you perceive the condition of social isolation imposed during this period of Covid-19 Pandemic?
4. How do you perceive the relationship with your schoolmate's/classmates during this period of Covid-19 Pandemic?
5. How do you perceive your online studying during this period of Covid-19 Pandemic?
6. I am not able to organize my time during e-learning effectively.
7. I lack the daily routine due to the absence of classes at school.
8. I manage to complete the assignments for the online courses.
9. I am more systematic and organized during Covid- 19 pandemic than usual.
10. I feel more passive in online learning than in the standard classroom courses on campus.
11. I miss having contact with other students due to the Covid-19 pandemic.
12. The communication with the instructors works fine during the COVID-19 pandemic.
13. I hesitate to ask my teacher for help in the e-learning environment.
14. It is hard for me to discuss with other students when I don't see their faces.
15. What is your learning from this lockdown period due to COVID-19?
16. How are you spending your time during this lockdown period due to COVID-19?
17. Do you feel this lockdown affected your career opportunities?

The study was performed in **RESULTS:**

Nazarbayev Intellectual school, Shymkent Kazakhstan among 36 Grade 12 students from different -2 groups. Among 36 students, 12 (33.34%) were females & 24 (66.67%) were males.

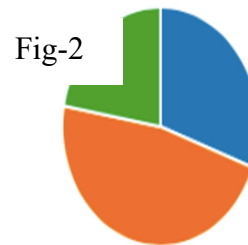
How do you perceive the risk of contagion during this period of Covid-19 Pandemic?

● Not at all stressful	7
● Somewhat stressful	22
● Moderately stressful	6
● Extremely stressful	1



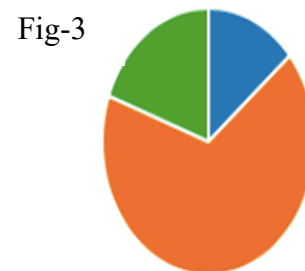
How do you perceive the condition of social isolation imposed during this period of Covid-19 Pandemic?

💡 Insights	
● Not at all stressful	11
● Somewhat stressful	17
● Moderately stressful	8
● Extremely stressful	0



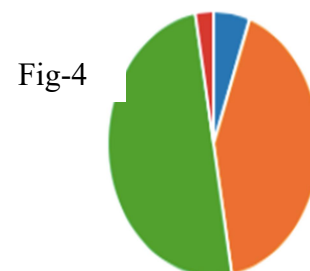
I manage to complete the assignments for the online courses

● Strongly agree	5
● Agree	24
● Disagree	7
● Strongly disagree	0



I am more systematic and organized during Covid- 19 pandemic than usual

● Strongly agree	2
● Agree	15
● Disagree	18
● Strongly disagree	1



How do you perceive the relationship with your schoolmate's/classmates during this period of Covid-19 Pandemic?

Not at all stressful	20
Somewhat stressful	11
Moderately stressful	4
Extremely stressful	1



Fig-5

How do you perceive your online studying during this period of Covid-19 Pandemic?

Not at all stressful	14
Somewhat stressful	14
Moderately stressful	6
Extremely stressful	2



I am not able to organize my time in the during e-learning effectively

Strongly agree	2
Agree	15
Disagree	14
Strongly disagree	5



Fig-6

I lack the daily routine due to absence of classes at school

Strongly agree	3
Agree	13
Disagree	18
Strongly disagree	2



Fig-7

Fig-8

It is hard for me to discuss with other students when I don't see their faces

Strongly agree	7
Agree	13
Disagree	10
Strongly disagree	6



Fig-9

What is your learning from this lockdown period due to COVID-19?

Self-sustainability	12
Humanity	3
Cleanliness	2
All the above	19



Fig-10

How are you spending your time during this lockdown period due to COVID-19?

Reading books, online educati...	7
Workouts and Meditation	4
Spending time with family me...	12
All the above	13

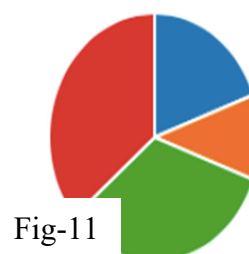


Fig-11

Do you feel this lockdown affected your career opportunities?

Yes	24
No	12



Fig-12

I feel more passive in online learning than in the standard classroom courses on campus.

Strongly agree	8
Agree	22
Disagree	4
Strongly disagree	2

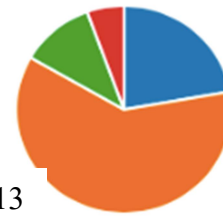


Fig-13

I miss having contact with other students due to Covid-19 pandemic

Strongly agree	11
Agree	15
Disagree	7
Strongly disagree	3



Fig-14

The communication with the instructors works fine during COVID-19 pandemic

Strongly agree	3
Agree	20
Disagree	10
Strongly disagree	3



Fig-15

I hesitate to ask my teacher for help in e-learning environment

Strongly agree	2
Agree	13
Disagree	17
Strongly disagree	4



Fig-16

23% of students answered Moderately stressful for Fig-2, and the majority answered yes for fig-12. Most students (48%) felt social imposed during this period of Pandemic. Most students found having difficulties for better communication in online learning. Most students felt learning and their engagement is passive and it is compromised during online learning. We learned from the study that around 50% of students are lost concentration and disagree they are systematic and organised in online learning.

Students (66%) feel that lockdown and online learning can affect their career opportunities.

From this survey and results, it can be observed that students are poorly motivated for online learning and teachers have difficulties in engaging them.

We applied the following approaches to improve the motivational level of students during online learning.

Engaging Students in Online Lesson

Developing problem-solving skills in Online Classroom No child left behind! Education leaders are tackling the unexpected challenge of providing distance learning. According to C.Seale(16), “Distance learning has the strategic advantage of making it easier in some cases for teachers to pinpoint specific academic struggles”. Therefore, due to the best resources and facilities provided by NIS management, we changed lesson delivery and designed differently compared to traditional and face to face teaching process. We majorly focused on developing students’ listening skills, enlarging their vocabulary(English is 3rd language for our students), developing their problem-solving skills and developing critical thinking. We provided students with tasks that should be interesting, success-orientating, and require students to interact with each other. By sharing the same screen content on Microsoft teams picture, video or chart, enable our students to see exactly what they are supposed to do. We avoid too complicated instructions that might cause confusion or misunderstanding. We made the lesson plan interactive to avoid a difficult situation. As Einstein once said, “Creativity is intelligence having fun”, it is an important aspect of teaching. We “solved problems, think up new ideas and have insightful ‘eureka’ moments” (24), For instance, sometimes students get bored we offered them Kahoot games created by school teachers Therefore, we always have 2-3 lesson plans in store. Besides, we sometimes played a piece of background music to catch their attention, to help them focus while working in pairs or groups, or as a sign that it is time to start or stop the activity. Creative teaching is also important because in this way we can help our students to believe in themselves and to be more confident in learning (23).

Developing New Skills Set

No doubt that we worked to help students achieve their goals had struggled in the distance learning environment. But there are countless apps that can help educators gather the necessary information in a distance learning environment. “To define success, presume that every single student has the necessary support to participate in distance learning” (16). Online teaching supposes not only academic achievement but learning all the necessary skills of the 21st century, such as * active learning strategies * creativity * critical thinking and analysis * collaboration * leadership, and social influence * debate, and negotiation.

We provided them a lot of material that helped in their projects and homework. We encourage them to set their own academic goals for distance learning and follow them at their own pace. Based on the survey students find online home-work and assignments boring and deadlines didn’t attractive to them, it was difficult at the first glance to learn such skills online but we gave them clear instructions and doing works that must be submitted before the deadline. As it was mentioned above, creativity is very important not only for teaching but for studying as well. In the online classroom, it increases motivation, empowers learners, and helps them to develop a sense of excitement and self-esteem. We encourage our students to create their activities and share them on the Microsoft team(NIS network using this tool for online learning and teaching process). Teaching is much less important than focusing on whether and how students are learning and creating tasks themselves (16). Making their activities based on the material that has been learning currently is not only a great way for students to create innovative products using technology but also a powerful tool to increase their motivation, creativity, and autonomy. Many students are good at technology and may be interested in preparing their own materials and share them with their classmates. In this way, they will get an opportunity to express themselves. We encourage students who are excellent with video making to share videos with their classmates. Other groups can create their own materials, for example, quizzes, crosswords, word games, and other appropriate materials for the class

smartboard. Such online activities make lessons much different from the traditional ones in the real classroom and with textbooks and notebooks. Giving an opportunity to students to classroom presentations and evaluate each other's materials and performance, helped them to develop the skills of critical thinking and analysis. "Asking students to analyse and interpret primary materials and timely content can boost their critical thinking and engagement" (13). Besides, in this way, they learn the skill of collaboration. While in a real classroom students meet in-person, during online classes, teachers and students need additional resources to collaborate virtually

CONCLUSION:

Based on our survey we found motivation level was low in students of grade 12 in distance learning, According to research, many of the strengths and challenges of collaborative learning apply both in face-to-face or online learning contexts. Some teachers claim that there is no or very little difference between online collaborative learning and well-conducted traditional classroom. Others think that it is still challenging to catch their attention and to keep them in front of the screens for 40 minutes, especially when you teach kids who are experiencing online learning first time. Therefore, they need eye-catching materials and games on virtual smart boards. There is a strong call for all stakeholders in the education industry to recognize the need for an immediate and holistic policy to identify and manage the psychological impact of COVID-19 or any future pandemics on students. In this regard, both higher education institutions and the relevant ministries at a broader level play a pivotal role(25).

Once again, we see that the form of conducting a lesson is less important than the structure of the lesson, the way of teaching, and keeping them interested and motivated. It can work well in both contexts. Indeed, it is possible to conduct either model synchronously or asynchronously, at a distance or face-to-face. In our opinion, there is enough evidence that collaborative learning can be practiced online. Teamwork has traditionally played a critical role in traditional schools. And these days, while many teachers and students find themselves physically isolated, their collaborative work with one another may be more important now than ever and it motivates them to study together.

REFERENCES:

1. World Health Organization Coronavirus Disease (COVID-19) Pandemic. [(accessed on 18 May 2020)]; <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.
2. Bai Y., Lin C.C., Lin C.Y., Chen J.Y., Chue C.M., Chou P. Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatr.Serv.* 2004;55:1055–1057. doi: 10.1176/appi.ps.55.9.1055.
3. Liu X., Kakade M., Fuller C.J. Depression after exposure to stressful events: Lessons learned from the severe acute respiratory syndrome eepidemic. *Compr.Psychiatry.* 2012;53:15–23. doi: 10.1016/j.comppsy.2011.02.003.
4. Wu P., Fang Y., Guan Z., Fan B., Kong J., Yao Z., Liu X., Fuller C.J., Susser E., Lu J., et al. The psychological impact of the SARS epidemic on hospital employees in China: Exposure, risk perception, and altruistic acceptance of risk. *Can. J. Psychiatry.* 2009;54:302–311. doi: 10.1177/070674370905400504

5. Taylor M.R., Agho K.E., Stevens G.J., Raphael B. Factors influencing psychological distress during a disease epidemic: Data from Australia's first outbreak of equine influenza. *BMC Public Health*. 2008;8:347. doi: 10.1186/1471-2458-8-347.
6. Sprang G., Silman M. Posttraumatic stress disorder in parents and youth after health-related disasters. *Disaster Med. Public Health Prep*. 2013;7:105–110. doi: 10.1017/dmp.2013.22.
7. Rith-Najarian L.R., Boustani M.M., Chorpita B.F. A systematic review of prevention programs targeting depression, anxiety, and stress in university students. *J. Affect. Disord*. 2019;257:568–584. doi: 10.1016/j.jad.2019.06.035.
8. Centers for Disease Control and Prevention (CDC) [(accessed on 28 May 2020)]: <https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html>.
9. Grubic N., Badovinac S., Johri A.M. Student mental health in the midst of the COVID-19 pandemic: A call for further research and immediate solutions. *Int. J. Soc. Psychiatry*. 2020;66:517–518. doi: 10.1177/0020764020925108.
10. United Nations Educational, Scientific and Cultural Organization (UNESCO) [(accessed on 1 June 2020)]; Available online: <https://en.unesco.org/covid19/educationresponse>.
11. <https://www.garda.com/crisis24/news-alerts/322526/kazakhstan-government-confirms-first-cases-of-covid-19-march-13-update-7>
12. Newton, D. (2020). Most teachers say they are not prepared to teach online. Retrieved from <https://www.forbes.com/sites/dereknewton/2020/03/26/most-teachers-say-they-are-not-prepared-to-teach-online/#16934f497f2c>
13. Ralp, M. (2020). Teaching strategies of award-winning online instructors. Retrieved from <https://www.edutopia.org/article/teaching-strategies-award-winning-online-instructors>
14. Cooper, S. (2016). Five strategies to improve your online teaching. Retrieved from <https://elearningindustry.com/5-strategies-improve-your-online-teaching>
15. Fazinic, V. (2015). Filmmaking in the classroom. IATEFL 2015, Manchester Conference Selections (p. 142)
16. Seale, C. (2020). Distance learning during the coronavirus pandemic. Retrieved from <https://www.forbes.com/sites/colinseale/2020/03/17/distance-learning-during-the-coronavirus-pandemic-equity-and-access-questions-for-school-leaders/#1f09050b1d4d>
17. Eslami, Nicolas Hees, Theophase et. Attend, Infer, repeat from 33rd International conference on Machine learning, New York, 2016
18. Parray and Kumar, 2017, W.M. Parray, S. Kumar Impact of assertiveness training on the level of assertiveness, self-esteem, stress, psychological well-being and academic achievement of adolescents *Indian J. Heal. Wellbeing*, 8 (12) (2017), pp. 1476-1480
19. Juster et al., 2016, R.P. Juster, É. Ouellet, J.P. Lefebvre- Retrospective coping strategies during sexual identity formation and current biopsychosocial stress
20. Heinen et al., 2017 I. Heinen, M. Bullinger, R.D. Kocalevent Perceived stress in first year medical students-associations with personal resources and emotional distress
21. Ali, 2020 W. Ali Online and remote learning in higher education institutes: a necessity in light of COVID-19 pandemic *High Educ.*, 10 (3) (2020)
22. Bozkurt et al., 2020

A. Bozkurt, I. Jung, J. Xiao, V. Vladimirschi, R. Schuwer, G.Egorov, S. Lambert, M. Al-Freih, J. Pete, D. Olcott Jr., V. Rodes

A global outlook to the interruption of education due to COVID-19 Pandemic: navigating in a time of uncertainty and crisis

Asian J. Dist. Educ., 15 (1) (2020), pp. 1-126

23. Smith, A. M. (2017). Creating an inclusive classroom: Raising awareness of dyslexia and neurodiversity. IATEFL 2017, Glasgow Conference Selections (p.128).

24. Brann, A. (2017). Creativity. Is your intelligence having fun? <https://doi.org/10.19173/irrodl.v10i3.675>

25. Psychological Impact of COVID-19 and Lockdown among University Students in Malaysia: Implications and Policy Recommendations

Sheela Sundarasan,¹ Karuthan Chinna,² Kamilah Kamaludin,¹ Mohammad Nurunnabi,¹ Gul Mohammad Baloch,² Heba Bakr Khoshaim,³ Syed Far Abid Hossain,⁴ and Areej Sukayt¹

Author Declaration: Source of support: Nil, Conflict of interest: Nil

Ethics Committee Approval obtained for this study? YES

Was informed consent obtained from the subjects involved in the study? YES

For any images presented appropriate consent has been obtained from the subjects: YES

Plagiarism Checked: Urkund Software

Author work published under a Creative Commons Attribution 4.0 International License



Creative Commons Attribution

CC BY 4.0

DOI: 10.36848/IJBAMR/2020/26215.55615