



Impact of Post-COVID-19 Lockdown on School Engagement of Secondary School Students in Idemili North, Anambra State

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The study was carried out to investigate the impact of post-Covid-19 lockdown on school engagement of secondary school students in Idemili North, Anambra State. Three research questions guided the study. The study employed a descriptive survey research design. The population of the study comprised all 1,774 Senior Secondary School students (SSS2) in the 16 public secondary schools in Idemili North, Anambra State. The sample of the study was 570 Secondary School students (SSS2) selected through a multi-stage sampling procedure. The instrument for data collection was a 15-item questionnaire titled "Impact of Post Covid-19 Lockdown on School Engagement of Students" which was validated by two experts in the Department of Educational Foundations, Nnamdi Azikiwe University, Awka. The reliability of the instrument was determined using Cronbach Alpha statistics which yielded alpha coefficients of 0.74, 0.70 and 0.76 respectively for the three clusters, while the overall co-efficient value was 0.73. This was considered high enough to confirm the instrument as reliable. The data were presented in Tables and analyzed with arithmetic mean. The findings of the study revealed that post-Covid-19 lockdown has a positive impact on the behavioural, cognitive engagement and emotional engagement of students. It was summarily concluded that post-Covid-19 lockdown has a positive impact on the academic engagement of secondary school students. It was recommended that school authorities should make their school environment enriching to help the students reignite their passion for learning.

Keywords: *Post-Covid-19; lockdown; School Engagement; Secondary Schools; Idemili North, Anambra State.*

1. INTRODUCTION

One of the best legacies a nation can imprint in its citizens is education. This is because education is the bedrock and very important in the development of any nation. It forms the basis for literacy, skill acquisition, technological advancement and the ability to harness human and material resources towards the achievement of societal goals [1]. This can only be achievable if the education system is comprehensive, sustainable and continuously meet the challenges of the globalized and fast-changing world [2]. Education is the process of transmitting what is worthwhile to members of society. It encompasses all those experiences of the individual through which knowledge is acquired and intellect enlightened and all these happen through learning.

Learning is a relatively permanent change in an individual's behaviour due to practice, insight and experience [3]. Learning experiences presented to the learner should be all-inclusive to reflect their varied abilities to both arouse their interest and get them involved as they interact with their environment [4]. Depending on the epistemology underlying the learning design, learners might interact with teachers, with content and/or with other people [5]. Many educators expend an enormous amount of effort to design their learning to maximize the value of those interactions. The task of education is to help students to become useful members of society and this training is dependent on the learning environment of the student. As such an important factor that influences students' learning is the environment and of great import to this study is the school environment.

The school environment plays a vital role in determining how students perform or respond to circumstances and situations around them [6]. This implies that no society is void of environmental influences. School environmental factors could have a lot of positive or negative impacts on students' learning depends on the quality of school culture, instructional materials, discipline, physical facilities, teacher quality and the location of the school [7-10]. The school environment determines to a large extent how a student behaves and interacts [11]. Nevertheless, the utilization of the physical school environment was put to a hold owing to the advent of the Covid-19.

1.1 Covid-19 Pandemic Lockdown School Experience in Nigeria

The global Covid-19 pandemic started in Wuhan, China in 2019 and within a short period, spread over other countries of the world [12]. The pandemic ushered in a range of government-sanctioned and structure-shifting risk-control directives across Nigeria and the globe in an attempt to curtail the spread of the novel coronavirus disease. For instance, the Federal Government of Nigeria introduced various containment strategies such as the closing of the national borders and airspace, schools, worship centres, markets and other public places, and cancelling mass gatherings [13]. The lockdown in Nigeria cut across all the locations including Anambra State. For some sectors, the immediate impact of this post-Covid-19 lockdown was evident and one of them is the education sector.

The vision of Nigeria's educational system is to be pace-setting education in terms of learning, character building and service to mankind with a mission to produce competent, self-reliant and resourceful graduates-citizens with high moral standards in our society [14]. The nationwide school closures disrupted learning and access to vital school-provided services for a record number of students in Nigeria. COVID-19 disrupted the landscape of learning in Nigeria by limiting how students accessed learning across the country. For instance, the closure of secondary schools restricted the students' access to conventional teaching method which majority of the students was acquainted with. Although, the Government at various levels endorsed online teaching and learning to keep the academic calendar undisrupted, it was reported that digital teaching method witnessed problems during the Covid-19 pandemic as a result of poor digital capacity, lack of facilities for e-learning, poor network from service providers, cost of data and so on [15,16]. Apparently, for an already fragile education system, the COVID-19 pandemic posed unprecedented challenges to the government, students, and parents that could highlight and amplify some of the cracks in the system [17]. According to the report by UNESCO (2020), the closure of educational institutions impacted over 91% of the world's student population. One of the impacts of the Covid-19 pandemic could be on the students' school engagement.

1.2 School Engagement

School engagement is generally considered to be among the better predictors of learning and personal development. The more students study or practice a subject, the more they tend to retain knowledge about it. Likewise, the more students practice and get feedback on their writing, analyzing, or problem-solving, the more adept they should become [18]. The very act of being engaged also adds to the foundation of skills and dispositions that are essential to living a productive and satisfying life after college. That is, students who are involved in educationally productive activities in college are developing habits of the mind and heart that enlarge their capacity for continuous learning and personal development [19]. In this respect, student engagement was defined by Gunuc [20] as the quality and quantity of students' psychological, cognitive, emotional and behavioural reactions to the learning process as well as to in-class/out-of-class academic and social activities to achieve successful learning outcomes.

1.3 Components of School Engagement

Cognitive engagement includes investment in learning, the value given to learning, learning goals, self-regulation and planning. The cognitive engagement has an important relationship with learning motivation. Cognitive engagement refers to students who invest in their learning, who accordingly determine their needs and who enjoy their mental difficulties [20]. Emotional engagement involves students' responses to the teacher, peers, course content and to the class which all include attitudes, interests and values [21]. Fredrick et al added that such emotions as a sense of belonging to school/university, loving the university and feeling like a member of a group are also examined within the scope of emotional engagement. Behavioural engagement includes students' participation in academics, their efforts, their attendance in classes and their class participation [20]. The basics of behavioural engagement could be said to be related to class activities. The campus (out-of-class) and social activities are also examined within the scope of behavioural engagement.

1.4 Theoretical Framework

The theory of involvement by Alexander Astin (1984) posited that the amount of learning and personal growth associated with any educational program is directly proportionate to the quality and quantity of student involvement in that

program. Student involvement refers to the amount of physical and psychological energy that the student devotes to the academic experience. Involvement theory accentuates students' behaviour, that is, what students do and how they behave in the course of discharging learning activities. In other words, the theory emphasizes the active participation of the student in the learning process.

Previous studies recorded that academic passion has a positive relationship with academic engagement while teacher developmental feedback positively moderated the relationship between academic passion and academic engagement [22]. In their study, Sundaresen et al. [23] observed a high anxiety level among students during the period of Covid-19 lockdown. Anxiety, as a psychological construct, can affect the academic engagement of students even after the lockdown especially when not addressed. Similarly, Wang, Zhang, Zhao, Zhang and Jiang [24] aver that heightened uncertainty and its bearings on students' academic progress could influence students' psychological well-being. A study by Anierobi, Okeke and Joe-Akunne [13] revealed that post-covid-19 pandemic lockdown has a high impact on the psychosocial adjustment of university students. Zhang et al. [25] found that adaptability (the ability to respond to changes) and student engagement are significantly positively correlated with positive academic emotion. This implies that positive academic emotion can students' adaptability and engagement with learning.

Sequentially, Seetan et al. [26] in a study with medical students showed that the covid-19 pandemic harmed the students' study life and social relationships. Similarly, Uddin and Uddin [27] equally revealed that the Covid-19 pandemic affected the mental health of students as a result of social, economic and educational factors. In their study, Orok et al. [28] showed a considerable effect of COVID-19 on mental health, social life, safety and formal learning among the students. A study by Ojetunde, Bamigbala and Oyegoke [29] found that during the period of the Covid-19 pandemic, the behavioural engagements of students were significantly affected. A negative effect of school closures on student achievement was found by Hammerstein et al. [30]. This could be a result of seemingly the absence of teacher-student face-to-face interaction that could boost behavioural engagement of the students. To Mupa and Chinooneka [31], teachers' poor students'

engagement in non-utilization of instructional materials, or teaching the students in harsh and uncondusive teaching and learning environments all contribute to poor school engagement of students.

1.5 Statement of the Problem

Before the pandemic, the normal running of academic activities was the order of the day. Students were joyfully attuned to the school programme and activities. However, things took a new turn with the advent of Covid-19. Academic sessions were disrupted after the coronavirus was declared a public health emergency. This left many students and educators in a rude shock as some of these institutions were at the point of preparing for an examination, admitting new students, and beginning a new term, among others. Educational institutions around the world including in Africa have resulted in looking for ways to cope and adapt to academic changes because of this pandemic. Now, the pandemic is gradually winding down as normal activities have returned to various sectors of the economy including the academic sector, it is of interest to the researcher to find out the impact of post-Covid-19 lockdown on school engagement of secondary school students in Idemili North, Anambra State. This study was guided by three research questions. They are:

1. What is the impact of post-Covid-19 lockdown on students' behavioural engagement in Idemili North, Anambra State?
2. What is the impact of post-Covid-19 lockdown on students' cognitive engagement in Idemili North, Anambra State?
3. What is the impact of post-Covid-19 lockdown on students' emotional engagement in Idemili North, Anambra State?

2. MATERIALS AND METHOD

2.1 Participants

Five hundred and ninety (570) senior secondary school students drawn from a population of 1,774 senior secondary two (SS2) class students in 16 public secondary schools in Idemili North, Anambra State formed the sample size of the study. The respondents were 325 males and 245 females with an average age range of 16. A

multi-stage sampling procedure was adopted in sample selection for the study. Firstly, from the 16 public secondary schools in the study area, ten co-educational schools with the highest population of SS2 students were picked while only two co-educational public schools were dropped because their populations were less than twenty. This was to ensure that a good number of students in each of the selected school took part in the exercise. The disproportionate sampling technique was used in selecting students from each of the schools so that more students were selected from highly populated schools. This random selection was done from students who volunteered to take part in the exercise after they were briefed on the purpose of the study and confidentiality assured. Out of the 590 copies of the questionnaire were distributed, 20 were considered invalid because they were wrongly filled. A total number of 570 appropriately filled questionnaires were used for the analyses and thus, formed the sample size for the study.

2.2 Instrument

The instrument used for data collection is a researcher-structured questionnaire titled: Impact of Post Covid-19 Lockdown on School Engagement of Students Questionnaire (IC19LOSESQ). The instrument was divided into two sections, Section A and Section B. Section A contains personal information about the respondents, while Section B has three clusters containing 15 items to address the behavioural, cognitive and emotional engagement of students as represented in the research questions. Each of the clusters has 5 items each, for instance, *"The relaxation of the Covid-19 pandemic lockdown made me feel so reluctant to come to school regularly"* for behavioural engagement; *"As a consequence of the post Covid-19 lockdown, I find it hard to spare time to synthesize and organize ideas"* for cognitive engagement and *"Owing to the post Covid-19 lockdown, I tend to distance myself from people out of fear of contracting the virus"* for affective engagement. The questionnaire was structured on a 4-point response scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) and weighted 4, 3, 2 and 1 respectively with the average of 2.50 used in determining the decision rule for agreement or disagreement on each of the items. Items that were negatively worded were reversed during scoring.

2.3 Procedure

The procedure of the study started with submitting the questionnaire for scrutiny by experts. They were requested to assess the questionnaire items with regards to clarity, lack of ambiguity and their relatedness to the purpose of the study. Afterwards, a trial test was conducted with 35 SS2 students in a public secondary school in Awka South LGA which is outside the study area. This was to ensure the instruments for the study are reliable for use. To achieve this, responses of willing 35 participants were elicited by one of the researcher during the official break time of the public secondary school after intimating them on the purpose of the study. The choice of using a public secondary school is because the sample has similar characteristics with those of the main study. The data collected for the trial testing of the instrument were analyzed using the Cronbach Alpha statistic. The analysis yielded alpha coefficients of 0.74, 0.70 and 0.76 were obtained respectively for the three clusters, while the overall co-efficient value was 0.73 which was considered high and showed that the instruments were reliable for use.

After ensuring the validity and the reliability of the instrument, the researchers proceeded with data collection for the main study. In doing this, the researchers visited the ten co-educational public secondary schools during the official school hours. They introduced themselves as researchers carrying out a study to the school authorities and after presenting the purpose of the study to the school authorities were authorized to distribute the questionnaires to SS2 students who were willing to participate in the exercise. The students were assembled, introduced to the purpose of the study, assured confidentiality of their responses which will neither be right nor wrong since the study is only for an academic purpose. From each of the ten schools, a total of 59 students were randomly selected through picking of a paper folded, put in a basket and shuffled. Those that picked a YES participated in the exercise while those that picked a NO were dropped.

In addition to the written instruction contained on the questionnaire booklet, the participants were given an oral instruction on how they may fill in the items in the questionnaire. After filling their responses to the item questions which took each of the respondents about 10 minutes, the researchers collected back the filled questionnaire from the respondents. Out of a

total of five hundred and ninety (590) questionnaires distributed, 20 were incompletely filled and thus considered invalid. A total of 507 were appropriately filled and used for the analysis of the study and thus, considered the sample size for the study.

2.4 Design/Statistics

The descriptive research design was adopted in the conduct of the study. This is because the study sought to describe the existing phenomenon without manipulating the variables of interest. According to Nworgu [32], a survey research is one in which a group of people or items are studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. The design is appropriate for the study because the researchers sought to elicit responses of senior secondary school students on the impact of post-Covid-19 lockdown on their school engagement. Data collected were presented in Tables and analyzed using the arithmetic mean. To determine the cut-off point for agreement and disagreement, the average mean score of 2.50 was used based on the four-point response scale. The decision rule, therefore, was that any weighted mean score from 2.50 and above indicated acceptance of the research item while weighted mean scores below 2.50 were taken as disagreed with the research item.

3. RESULTS AND DISCUSSION

3.1 Results

Research Question One: What is the impact of post-Covid-19 lockdown on students' behavioural engagement in Idemili North, Anambra State?

Data in Table 1 show that items 1,3, 4 &5 have mean scores above 2.50. This indicates that the respondents agree that the post-Covid-19 lockdown has made them feel so reluctant to: come to school regularly, and participate in school-organized seminars. Furthermore, during the period of post-Covid-19 lockdown, students now have a job that takes them away from school and they feel so get attached to staying at home. Nevertheless, item 2 has a mean score below 2.50 indicating that students disagree that they lack interest in homework in post-covid-19 pandemic lockdown. The grand mean of 2.49 which is below the cut-off mean of 2.50 further indicates that the respondents agree that post-

Covid-19 lockdown positively impacted their cognitive engagement. This is so because the items were negatively worded, thus, the interpretation of the below cut off mean should be interpreted as a positive impact.

Research Question Two: What is the impact of post-Covid-19 lockdown on students' cognitive engagement in Idemili North, Anambra State?

Data in Table 2 show that items 1-4 have mean scores above 2.50 except item 5. This indicates that the respondents disagree that post-Covid-19 lockdown has made them feel so reluctant to: continue with their academics, spare time to synthesize and organize ideas, fight for high grades or tend to have lost hold of some of their basic academic abilities, rather, they now find studying bit stressful. The grand mean of 2.28 which is below the cut-off mean of 2.50 further indicates that the respondents agree that post-Covid-19 lockdown positively impacted their cognitive engagement. This is so because the items were negatively worded, thus, the interpretation of the below cut off mean should be interpreted as a positive impact.

Research Question Three: What is the impact of post-Covid-19 lockdown on students' emotional engagement in Idemili North, Anambra State?

Data in Table 3 show that items 1-4 have mean scores below 2.50. This indicates that the respondents disagree that as a consequence of post-Covid-19, they tend to distance themselves from people, feel no enthusiasm to make frequent contributions in the classroom, be unavailable to tutor other students (paid or voluntary) during the non-school hours, feel so reluctant to discuss class issues and projects with their fellow students, but they focus more on the acquisition of life skills that what the teacher teaches in the class and look out for only the subjects they enjoy most while paying less attention to others. The grand mean of 2.34 which is below the cut-off mean of 2.50 further indicates that the respondents agree that post-Covid-19 lockdown positively impacted their emotional engagement. This is so because the items were negatively worded, thus, the interpretation of the below cut off mean should be interpreted as a positive impact.

Table 1. Mean Ratings of Respondents on the Impact of Post Covid-19 Lockdown on Students' Behavioural Engagement in Idemili North, Anambra State (N=570)

S/N	Items	\bar{X}	Remark
1.	The post Covid-19 lockdown made me feel so reluctant to come to school regularly	2.54	Agree
2.	As a result of the post Covid-19 lockdown, I do feel reluctant to participate in take-home assignment	2.32	Disagree
3.	Owing to the impact of post Covid-19 lockdown, I now feel so reluctant to participate in school organized seminars	2.55	Agree
4.	As a consequence of the post Covid-19 lockdown, I now have a job that takes me away from school sometimes	2.52	Agree
5.	The post Covid-19 lockdown made me feel so attached to staying at home	2.50	Agree
	Grand Mean	2.49	Disagree

Table 2. Mean ratings of respondents on the impact of post Covid-19 Lockdown on Students' Cognitive Engagement in Idemili North, Anambra State (N=570)

S/N	Items	\bar{X}	Remark
1.	Owing to the post Covid-19 lockdown, I tend to have no desire to continue with my academics	2.25	Disagree
2.	As a consequence of the post Covid-19 lockdown, I find it hard to spare time to synthesize and organize ideas.	2.22	Disagree
3.	Post Covid-19 lockdown has made me realize that I don't need to fight for high grades	2.16	Disagree
4.	As a consequence of the post Covid-19 lockdown, I tend to have lost hold of some of my basic academic abilities	2.17	Disagree
5.	As a consequence of the post Covid-19 lockdown, I find studying bit stressful	2.59	Agree
	Grand Mean	2.28	Disagree

Table 3. Mean Ratings of respondents on impact of post Covid-19 Lockdown on Students' Emotional Engagement in Idemili North, Anambra State (N=570)

S/N	Items	\bar{X}	Remark
1.	Owing to the post Covid-19 lockdown, I tend to distance myself from people out of fear of contracting the virus	2.32	Disagree
2.	I no longer feel the enthusiasm to make frequent contributions in the classroom.	2.27	Disagree
3.	Owing to the post Covid-19 lockdown, I no longer make myself available to tutor other students (paid or voluntary) during the non-school hours due to my waning passion	2.26	Disagree
4.	I feel so reluctant to discuss class issues and projects with my fellow students.	2.18	Disagree
5.	The post Covid-19 lockdown has made me to look out for only the subjects I enjoy most while paying less attention to others.	2.67	Agree
	Grand Mean	2.34	Disagree

3.2 Discussion

The findings of the study revealed that post-Covid-19 lockdown has a positive impact on students' behavioural engagement. This is reflected in Table 1 where the respondents disagreed that post-Covid-19 lockdown has made them feel reluctant to participate in take-home assignments. However, they agreed that during the post-Covid-19 lockdown they now have a job that takes them away from school, they feel reluctant to participate in school-organized seminars; they feel so get attached to staying at home and feel so reluctant to come to school regularly,. The findings of the study agree with Mupa and Chinooneka [31] who asserted that teachers' poor students' engagement in non-utilization of instructional materials, or teaching the students in harsh and uncondusive teaching and learning environments all contribute to poor school engagement of students. Though, Ojetunde, Bamigbala and Oyegoke [29] found that during the period of the Covid-19 pandemic, the behavioural engagements of students were significantly affected while a study by Hammerstein et al. [30] showed a negative effect of school closures on student achievement. This could be a result of the seeming absence of teacher-student face-to-face interaction that could boost the behavioural engagement of the students. Nevertheless, this present study revealed that behavioural engagement of students was positively affected when the Covid-19 lockdown was relaxed.

The findings of the study revealed that post-Covid-19 lockdown has a positive impact on students' cognitive engagement. This is owing to indices in Table 2 which indicates that a good number of respondents agree that in the post-Covid-19 lockdown, they still find studying a bit

stressful. Nevertheless, they disagreed that it has made them feel so reluctant to: continue with their academics, to spare time to synthesize and organize ideas, to fight for high grades and now tend to have lost hold of some of their basic academic abilities. Though Seetan et al. [26] found that the Covid-19 pandemic had a negative impact on the students' study life and social relationships; Orok et al. [28] showed a considerable effect of COVID-19 on mental health, social life, safety and formal learning among the students and Uddin and Uddin [27] equally revealed that Covid-19 pandemic affected the mental health of students as a result of social, economic and educational factor, this present study showed that the relaxation of covid-19 pandemic lockdown has positively impacted the cognitive engagement of students in learning.

The findings of the study revealed that post-Covid-19 lockdown has a positive impact on students' emotional engagement. This is owing to the indices in Table 3 which indicates that the respondents disagreed that as a consequence of post-Covid-19, they tend to distance themselves from other students, feel no enthusiasm to make frequent contributions in the classroom, be unavailable to tutor other students (paid or voluntary) during the non-school hours, feel so reluctant to discuss class issues and projects with their fellow students, focus more on the acquisition of life skills that what the teacher teaches in the class but they agreed that in the post-Covid-19 lockdown, they look out for only the subjects they enjoy most while paying less attention to others. The finding of the study agrees with Zhao, Liu and Qi [22] that academic passion has a positive relationship with academic engagement while teacher developmental feedback positively moderated the relationship

between academic passion and academic engagement. Deductively, the academic passion developed by students via their teachers' efforts inspired them into engaging in their academic tasks. It further agrees with Anierobi, Okeke and Joe-Akunne [13] that post-covid-19 pandemic lockdown has a high impact on the psychosocial adjustment of students. Similarly, the finding of this study agrees with Zhang et al. [25] who found that adaptability (the ability to respond to changes) and student engagement are significantly positively correlated with positive academic emotion. This implies that positive academic emotion exhibited by the students boosted their adaptability and engagement with learning.

However, the finding of this study disagrees with Sundaresen et al. [23] who found a high anxiety level among students during the period of Covid-19 lockdown. This could be because Sundaresen et al carried out their study in 2020 when the effect of the Covid-19 pandemic lockdown was still high. This present study is carried out in 2022. The time interval is enough to bring about the disparity in the findings of the two studies. Similarly, Wang, Zhang, Zhao, Zhang and Jiang [24] aver that heightened uncertainty and its bearings on students' academic progress could influence students' psychological well-being.

4. CONCLUSION

Based on the findings of the study, it was concluded that relaxing of Covid-19 lockdown has a positive impact on the behavioural, emotional and cognitive engagement of the secondary school students in Idemili North, Anambra State.

5. RECOMMENDATIONS

Based on the findings of the study, it was recommended that school authorities should make their school environment enriching to help the students reignite their passion for learning.

6. LIMITATIONS OF THE STUDY

The study did not distinguish between male and female students or day students from boarding school students in getting their responses. Moreover, only the students who volunteered were given the opportunity to participate in filling out the questionnaires. The responses of the unwilling students might have made a greater impact if they had participated in the exercise.

More so, the study made use of arithmetic mean which may not have precisely shown the impact of Covid-19 pandemic lockdown on the academic engagement of the students.

IMPLICATIONS OF THE STUDY

Covid-19 post lockdown has a positive impact on the secondary school students' school engagement on the cognitive, behavioural and affective domains. This is an evidence that the lockdown arising from Covid-19 pandemic which brought about schools closure has debilitating impacts on the students despite the efforts to engage the students via online teaching. In other words, the finding of this study implies that students engaged more actively in their students at the relaxation of the Covid-19 pandemic lockdown.

FUTURE STUDIES

The current study did not extend its survey towards the socio-economic and school type differences of the students. There is the possibility that the impact of the post-covid-19 pandemic lockdown may differ on students based on their socio-economic dispositions and their school type. New studies should therefore, compare socio-economic disparities of the students and their school type in order to have deeper insight on the actual impact that post-Covid-19 pandemic lockdown has on the students using a different research method.

CONSENT

The researchers obtained permission from the school authorities before administering the questionnaire to the students. The purpose of the research was explained to the respondents and they were assured of confidentiality and anonymity of their responses. All the students that were willing to participate in the exercise were given the questionnaires to respond to without any form of coercion.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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