The Perception of Students on the Emotional Effects of the COVID-19 and the Transition to the Online Higher Education at the State of Guerrero, Mexico

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Abstract: The advance of COVID-19 has forced the Latin American and the Caribbean countries to close educational institutions at the preschool, elementary and junior high school levels. In Mexico, in addition, public and private universities were closed, for this reason, it is important to make a diagnosis of the impact associated with confinement measures and social distancing due to COVID-19. The aim of this study was to analyze the effects of COVID-19 on the academic performance and emotional health of the student population of the Natural Sciences College from the Guerrero State University in the context of the transition from face-to-face education to an online educational model. The study was conducted with a population of 88 students by applying an online survey of exploratory, descriptive, non-experimental design. According to the results, it is concluded that: It is necessary to reinforce the training of the teaching staff to guarantee a better quality transition towards the online education model, since there are deficiencies with regards to the management of virtual platforms and different digital resources. Students do not have an optimal connectivity nor technological resources, which is a limitation to carry out their academic activities to guarantee an effective learning, since some of them lack computer equipment and internet access which places them in a state of vulnerability. Respondents consider that the pandemic is a serious or extremely serious event that has modified their lifestyle and also reported to have symptoms of anxiety, stress or being scared and worried, which can have negative effects on their academic performance.

Keywords: Student Perception of COVID-19, Transition to Online Classes, Emotional Effects of COVID-19, Students Perception, Online Education

1. Introduction

More than a year after the start of the SARS-CoV-2 pandemic declared by the World Health Organization [1], it is necessary to access the impacts of the preventive social isolation on students, and learn about the major challenges arisen during the transition from a face-to-face into a virtual educational model [2]. Although the students are digital natives, it is not the same case with teachers, some of them, were not able to use the available technology in the virtual classroom, and for others, this has been the opportunity to face the transition with creative experiments and resilient formulas, that have achieved amazing results [3].

The global crisis due to the COVID-19 pandemic has lead to reconstruct the educational system at all levels, as well as the intensive use of all kinds of platforms and technological resources [4], in either synchronous or asynchronous form [5]. However, the emergency of the teaching methodology changes, in all over the world, has seen this transition as the most audacious experiment in educational technology, because of to the lack of planning and the unexpected event

[6]. Consequently, it is of great importance to access the results of lessons learned to reinforce inclusion, innovation and cooperation, under this new teaching system [7].

Since March 23, 2020, the government of Mexico, through the Ministry of Public Education, determined to suspend face-to-face classes as a protection measure for students, teachers and the general population [8]. So the teachers had to use all kind of instruments to continue promoting the students learning. This implied that teachers had to evolve from a traditional teaching system, to be mediators between the student and the development of their learning through the use of the communication technology, and at the same time, reflect on traditional teaching practice and innovation, based on the use of information technologies within the context of the transition to a new online educational model [9].

The panorama of the coronavirus (SARS-CoV-2), has transformed the traditional education, since the school teaching classrooms and the home spaces are currently the same place. Naturally, this abrupt change has represented a real educational challenge with consequences that affect the lives of students, especially the most vulnerable [10].

Learning in circumstances of social isolation, implies great challenges to students. This abrupt change, implied the suspension of face-to-face classes and adaptation to an online educational model, which presupposes that education must be carried out in a virtual teaching environment [11], located, in an educational space made up of a set of computer tools mediating the didactic interaction.

The intensive use of all types of platforms and technological resources was privileged to guarantee the continuity of learning [6].

The sudden transition to an online teaching system implied changes and for an uncertain period of time that has not yet ended. Decisions made under these circumstances does not seems to be the best, and that is why it is imperative to make a diagnosis of the situation in order to assess the consequences of what has already been done, especially of the main actors involved in the teaching and learning process, that is, those who teach and study under these circumstances [12, 13].

The COVID-19 pandemic disrupted the organizational structure of educational institutions and had to migrate to an online education system [14], a system for which the teaching staff and students were not prepared. This fact represented a challenge, because both parties had to be updated in the use of information technologies, in the current online teaching model [15].

The Guerrero State University took over the challenge and suddenly adapted its traditional pedagogical approach to the online teaching-learning system [16].

The pandemic and quarantine arrived without a previous notice, however, it is important to take advantage of this crisis in order to analyze and access the strengths and the weakness of the online educational model, the aim of this study was to know and analyze the experience of the students of the Natural Sciences College from the Guerrero State University during the COVID-19 pandemics, which allows us to obtain a diagnosis to identify the areas of opportunity during the transition from face-to-face to an online educational model, in order to improve the academic quality and the administrative processes.

2. Results

For this study, an exploratory and descriptive non-experimental strategy was used, and carried out through the application of an online survey. The instrument was sent via e-mail to students officially enrolled in the Pharmacobiology and Experimental Biology undergraduate Educational Programs at Natural Sciences College from the Guerrero State University.

95 invitations were sent to officially enrolled students, obtaining 88 returned questionnaires (n=88), so it was decided to carry out the analysis with 92.6% of the responses received. The survey was voluntarily answered.

According to the perception of the students, the results of the survey regarding the preparation of the teaching staff to implement online classes, were the following: poorly prepared 6.8%, moderately prepared 56.8%, significantly prepared 28.4% and excellently prepared 8% (Figure 1).
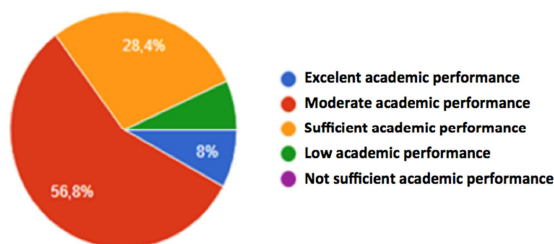

Figure 1. *Preparation of teachers to implement online classes.*

With regard to digital devices and connectivity for online learning available in the place where they have to attend their academic activities, the results indicate that 43.2% of students have at least one device with a medium screen (computer or tablet) but regular or poor connectivity, 27.3% have at least one device with a medium screen (computer or tablet) and good connectivity at home, 26.1% have only a cell phone with connection and 3.4% do not have a digital device or internet connection (Figure 2).
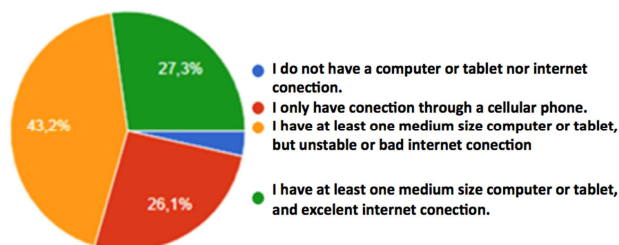

Figure 2. *Digital devices and connectivity available to students.*

Regarding the emotional state of the students, the results were: 56.8% show anxiety and stress, 38.6% are scared and worried, 30.7% are happy to be at home, 12.5% calm, 14.8% accompanied, 4.5% entertained and 12.5% feel tired (Figure 3).
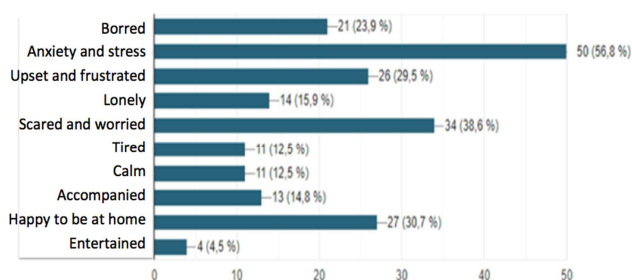
Figure 3. Emotional state of students associated with COVID-19 and confinement measures.

The COVID-19 quarantine has affected more than 860 million children and teenagers worldwide; however, no study has been developed within Western countries to analyze the emotional impact of the quarantine. A similar study was carried out on 1,143 parents of children and teenagers from Italy and Spain (two of the countries most affected by COVID-19), from 3 to 18 years old, who completed a survey providing information about the quarantine affects on their children and themselves, compared to before the home confinement [17]. Results showed that 85.7% of the parents perceived changes in their children's emotional state and behaviors during the quarantine. The most frequent symptoms were difficulty concentrating (76.6%), boredom (52%), irritability (39%), restlessness (38.8%), nervousness (38%), feelings of loneliness (31.3%), uneasiness (30.4%), and worries (30.1%). As expected, when family coexistence during quarantine became more difficult, and the level of stress was higher, parents reported more emotional problems in their children. The quarantine impacts on Italian and Spanish youth reinforce the need to detect children emotional problems as early as possible to improve their psychological well being as well as the learning environment [17].

Regarding the higher education, the scenario is not different from other countries in Latin America such as Ecuador, in which the availability of Information and Communication Technologies are fundamental conditions to guarantee the online education and the development of the student skills [18]. Teachers were also poorly prepared to face the transition from face-to-face classes to an online educational system, but they invested time and dedication to achieve an optimal teacher-student connection, in order to guarantee a quality education and the transmission of knowledge for a significant education [19], based on the technological tools of online education.

In the new paradigm of online education, the use of communication technologies mediated by electronic devices and the use of sophisticated platforms, are eliminating the differences between face-to-face and online education [20]. This evolution has resulted in a new "telematic" paradigm based on the application of telecommunication and computing techniques, which includes the foundations of a distance and open education, in the format of an online educational model.

3. Conclusions

Respondents consider that the pandemic is a serious or extremely serious event that has produced modifications in their lifestyle and they report having symptoms of anxiety, stress or being scared and worried, which can have negative repercussions on their academic performance. Respondents also referred that do not have the technological resources nor optimal internet connectivity to guarantee an effective learning, since some of them lack computer equipment and limited access to internet, their academic activities are also limited, which places them in a state of vulnerability. It is necessary to reinforce the training of the teaching staff to guarantee a better quality transition towards the online Educational model, since there are deficiencies with regards to the management of virtual platforms and different digital resources.

Acknowledgements

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