# Perceived Stress in Distant Learning among Students of University of Kerbala, during COVID-19 Pandemic

A Thesis

Submitted to the Council of the Faculty of Medicine/University of Kerbala in Partial Fulfillment of the Requirements for the Degree of Higher Diploma in Family Medicine

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( وَأَنْ لَيْسَ لِلْإِنسَانِ إِلَّا مَا سَعَى ۝ وَأَنَّ سَعْيَهُ سَوْفَ يُرَى ۝ ثُمَّ يُجْزَاهُ الْجَزَاءَ الْأَوْفَى )

**صدق الله العلي العظيم**

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Which was prepared by **Zahraa Raheem Owize** and was made under our supervision at the Department of Family and Community Medicine, College of the Medicine / University of Kerbala, as a partial fulfillment of the requirement for the degree of High Diploma (2 calendar years) in Family Medicine.
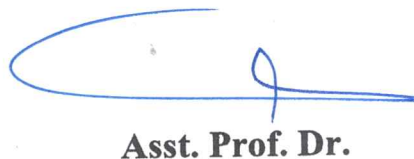
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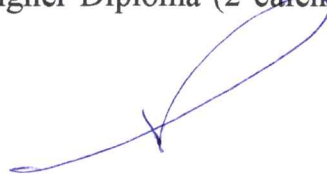
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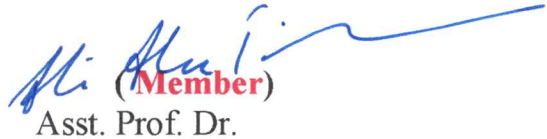Consultant psychiatrist
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# *Dedication*

*To ;*


*My father, My mother, My husband*

*And to all looking after my success*

# *Acknowledgments*

*First and foremost, I want to give appreciation to Allah, the Creator, for his blessings that helped me finish my research successfully.*

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| Lists of abbreviations | |
|---|---|
| **COVID-19** | Coronavirus disease 19 |
| **e-learning** | Electronic learning |
| **IT** | Information Technology |
| **KSA** | Kingdom of Saudi Arabia |
| **LMS** | Learning Management system |
| **PSS** | perceived stress scale |
| **SARS** | Severe acute respiratory syndrome |
| **SD** | Standard deviation |
| **SPSS** | Statistical package for social science |
| **WHO** | World health organization |

## Abstract:

**Background**:  COVID-19 emerged as one of the largest worldwide public health crises in recent times, and became a Global health issue COVID-19's rapid spread had a substantial impact on educational institutions. Therefore, the COVID-19 pandemic has altered the way learn in high education and compelled them to convert to an online learning environment.

**Subjects & Methods**: A cross-sectional descriptive study was conducted in Kerbala City, among 500 students aged 18 years and above, samples were taken randomly from five colleges in the University of Kerbala, and the survey was conducted from the first of March to the end of April 2022 using an anonymous self-administrated structured questionnaire.  Oral consent was taken, participants were informed that the data is anonymous, and some of the questionnaires were selected from different articles with some modifications the data were entered and analyzed through the statistical Package for the Social Sciences software version 22 program, p-value $<$ (0.05) is significant.

**Result:** The mean for age participants was ($21.62 \pm 2$) years old. The results showed that around (64.6%) of students had high levels of stress, while approximately (34%) had moderate levels**.** also about (1.4%) had a low level of stress through electronic learning during COVID-19.

There was a significant association between stress level and college, with (24.1%) of higher-stress levels in candidates for the College of Engineering (civil department) and (16.4%) for lowest-stress levels in candidates College of Physical Education and Sports Sciences.

In addition, the electronic problem was significantly correlated with unmarried, weak income, 2nd stage, and College (College of Physical Education and Sports Sciences).

**Conclusion:** nearly two-thirds of the students had a high level of perceived stress, and more than one-fourth had a moderate level of stress at the student's University of Kerbala after the outbreak of Covid-19 disease.

This study found a significant association between stress levels and college.

# Chapter one

# Introduction and literature review

## INTRODUCTION:

Perceived stress is the feelings or thoughts that an individual has about how much stress they are under at a given point in time or over a given period. Perceived stress incorporates feelings about the uncontrollability and unpredictability of one's life, how often one has to deal with irritating hassles, how much change is occurring in one's life, and confidence in one's ability to deal with problems or difficulties. It is not measuring the types or frequencies of stressful events which have happened to a person, but rather how an individual feels about the general stressfulness of their life and their ability to handle such stress. Individuals may suffer similar negative life events but appraise the impact or severity of these to different extents as a result of factors such as personality, coping resources, and support. In this way, perceived stress reflects the interaction between an individual and their environment which they appraise as threatening or overwhelming their resources in a way that will affect their well-being (Lazarus &Folkman, 1984). Perceived stress is commonly measured as the frequency of such feelings via a questionnaire such as the Perceived Stress Scale (Cohen, *et al.*, 1983).

The pandemic is defined by the World Health Organization (WHO) as the worldwide spread of a disease that affects a huge number of people (Jee, 2020). COVID-19 is a newly found coronavirus that can be transferred from one person to another caused by acute respiratory syndrome (AlAteeq, *et al*., 2020). In December 2019, the virus first appeared in Wuhan, a Chinese city, that became the center of a coronavirus outbreak (COVID-19) (Jiang, 2020).

In January 2020, the WHO declared a public health emergency of worldwide concern to prevent the infectious disease from spreading internationally as much as

possible while also supporting the affected country's response ( WHO, 2020). The coronavirus pandemic has targeted all people and the most vulnerable population, including obese people, smokers, cancer patients, chronic kidney disease, heart disease, lung disease, autoimmune disease, and type 2 diabetes, as well as health complications Since then millions of people have been infected and many have died (Clift *et al.*, 2020). Maintaining social distance is one of the ways that the WHO recommends to protect against viruses and protected yourself for at least 14 days during the incubation stage of the virus (Madan, *et al.*, 2021). Following recommendations by the health authorities to protect students and staff, people, therefore, it closed all schools, and universities to reduce the spread of infectious disease in the community by breaking important chains of transmission (except for essential services such as pharmacies, supermarkets, and hospitals) as a preventive and precautionary measure (Sahu, 2020). As a result, the WHO recommended simple precautions such as maintaining a distance of at least one meter, wearing a mask and disposing of correctly of it, keeping proper ventilation in rooms, avoiding crowding, disinfecting hands after wanting to take off the mask, and complete isolation in the event of illness, even if symptoms are mild (WHO, 2021).

Additionally, have implemented stringent measures, such as Covid-19 safety instructions, a variety of tactics are employed for that goal, such as designing specific hospitals, testing labs, and isolation infrastructure, and controlling viral spread throughout the nation. (Abdulsattar and Jones, 2021). During the COVID-19 pandemic, students received lectures via distance or online learning, which included video/recorded lectures, PowerPoint presentations, and animations (Radwan, *et al*., 2020). A digital library, Facebook, WhatsApp, YouTube, a learning management system (LMS), Google Forms, electronic learning, and television were given as examples of social media and educational platforms that can be delivered online or

offline (Radwan, 2021). Electronic learning also known as, E-learning, online learning, or digital learning, is a method of providing learning assistance through the use of digital technology (Clark and Mayer, 2016).

In the current crisis, e-learning appeared to be a viable alternative for maintaining teaching-learning activities (Kabir, *et, at.*, 2021). However, the arguments made in support of the widespread use of online courses during the pandemic, include whether it was free of obstacles and adverse mental health effects like stressors, nervousness, depressed mood, and student satisfaction (Müller *et al.*, 2021). Electronic learning has several benefits, including the ability to improve the quality of higher education, promote e-learning, save travel time and costs, and protect students' health from epidemics. Various e-learning technologies have recently grown popular among both instructors and students in this changing environment (Medicine *et al.*, 2021).

In Online teaching and learning, numerous aspects can either aid or hinder success. Students and teachers must see the importance of how online education works and perform effectively, as well as how valuable it will be in the future, and trust the medium and numerous online platforms for online education to be successful. Students need to feel involved, satisfied, excited, and happy about participating in such a fulfilling social and educational experience, just as they trust their teachers and professors to use these mediums to educate and explain any topic they present (Hughes *et al.*, 2002). On the other side, if educators are not trained in the usage of online systems, or if online courses are not correctly structured, online education may fail (Arabia, 2020). However, there are also inadequacies in the online education infrastructure, as well as instructor inexperience, especially with interviews, new technologies, and a difficult home situation (Ali, 2020). online education presents students with a variety of difficulties, including educational,

technological, and technical difficulties as well as familial and social environments, home confinement, and emotional problems (Malik, 2021). Additionally, a lot of students lack adequate hardware, internet connectivity, and studying spaces at home, which restricts their ability to learn at home (Zhang *et al.*, 2020). Social distance strategies and the end of face-to-face teaching at higher educational institutions have placed students in an entirely new situation with no clear indication of how long it will endure, putting their everyday lives at risk (IESALC, 2020). University and college students are more likely than the general population to experience feelings of loneliness, and they have greater rates of anxiety and depression (Diehl *et al.*, 2018).

 Students are prone to increase exacerbation of these symptoms throughout the COVID-19 era because of feelings of isolation, anxiety, and unexpected changes (Hadler, 2020). The difficulties that students encounter in online learning during COVID-19 now have the potential to harm their mental health. Education stress is a common mental health issue among college students, and it is primarily brought on by their anxiety about failing and losing their grades (Goff, 2011). Students may face seven challenges while taking online classes. First They were fatigued, fatigue is far more frequent than we think. It occurs without warning and leads to mental health problems. Second, they frequently suffer from headaches or other types of pain, and bodily discomfort. Third, they become unmotivated to do activities assigned by their teachers. Fourth, they tend to avoid and delay. Fifth, they become sloppy with their time management, which includes eating, sleeping, and doing home tasks. Sixth, they create a sense of isolation since they do not interact with other people or make new friends. Finally, they find it difficult to understand what the professor or classmates are saying during online lectures. This is because the setting differs significantly from person-to-person communication, in which they can interpret

signals, voice pitch and phrasing, body language, and other indicators to aid comprehension of the learning materials (English *et al.*, 2020). During COVID-19, students experience stress belong to many reasons, including worry about performing poorly and a delay in finishing their studies (Marelli *et al.*, 2021). This new pandemic situation is very frightening and stressful for everyone due to the high death rate of COVID-19 as well as due to associated factors such as economic instability, unemployment, stress, anxiety, and insecurity. it's normal for people to experience a wide range of unexpected thoughts, feelings, and reactions (Yasmin, 2020).

In a study in Ireland, the desktop learning module was reported to be at least as efficient as traditional face-to-face teaching techniques for teaching nursing students theoretically and methods of handwashing (Bloomfield, *et al.,* 2010). In Iran, the abrupt and long fluctuation from campus-based learning poses e-learning stress with readiness, feeling of separation, and loss of communication with fellow teachers, showing e-learning is not a superior learning method to traditional learning methods (Bahrambeygi *et al.*, 2018). These results might be due to poor e-learning organizations, including an absence of skill obtainability or reduced internet access, and weakness of electricity (Asha *et al.*, 2017). Academic stress arises from exposure to widespread and persistent stress due to several factors such as scholarship requirements, family-related pressures, competition in the classroom, and financial burdens on students and families (Misra and Castillo, 2004).

Perceived Stress is a negative emotional experience accompanied by predictable biochemical, physiological, cognitive, and behavioral changes that are directed either toward altering the stressful event or accommodating its effects (E. Taylor, 2015).

Psychological stress is caused by an imbalance between a person's perspective and their needs outside themselves, Thought stress is a subjective assessment of life events that entails determining how difficult a situation in one's life is perceived (Aslan, *et at.,* 2020). In addition the physical reactions, stress has an impact on emotions, conduct, and intellect. Each student responds to stress uniquely, and the severity of the symptoms in every category varies according to the individual and the stressor (Dangi and George, 2020).

Stress can be classified into various levels depending on the situation. There are three levels of stress :

1- Acute stress: The most prevalent form of stress that every person encounters at a certain point in their lives. Acute stress is triggered by current or impending events. It can be beneficial as well as harmful. for example, An automobile accident might cause severe acute stress. But there is nothing wrong with experiencing acute stress as long as it doesn't last too long or occur too frequently; it's usually simple to cure using basic approaches, signs of acute stress (Yasmin, 2020) such as:

• Stomach pain, such as heartburn

• High blood pressure and heart rate

• Headache, back pain, and jaw pain

• Shortness of breath and chest pain

2- Episodic stress: "Episodic acute stress" is a word that describes a sort of stress that occurs frequently. Those who are stressed regularly and try to handle it are frequently overwhelmed. For example, learners study on the night before a test instead of studying consistently throughout the day. This kind of stress is episodic because it is building up into a habit.

**3-** Chronic acute stress: can be described as a constant source of tension and can be thought of as never-ending stress. It frequently happens as a result of circumstances that feel miserable and uncontrollable, like a failing marriage, a bad job, or malnutrition. This form of stress hurts your health, resulting in cardiovascular disease, cerebrovascular disease, and maybe cancer. Chronic stress necessitates seeking help (Hammen, 2009).

A certain amount of anxiety is unavoidable but also useful for motivating students to study harder, keep focused, and back to their academics instead of participating in extracurricular activities. on the other hand, Students who are too worried and still unable to study effectively (Gale *et al.*, 2018).

Several studies have revealed that during a period of home confinement, the COVID-19 outbreak hurt both medical and non-medical students (Wu *et al.*, 2020). Moreover, students at the university are not permitted to return to college to study, and the traditional face-to-face teaching style has been replaced by an online teaching method. According to a Chinese study, learning fatigue is highly widespread among medical students who take online courses (Zhang *et al.*, 2021). The vast majority of medical students who took online courses (82.3%) reported feeling moderately to severely stressed (Wang *et al.*, 2021). A global epidemic and studying during the COVID-19 outbreak may cause both medical and non-medical students to experience emotional reactions that are more acute, increasing the chance of negative emotions such as fear and sadness (Chang *et al.*, 2021).

Another study including 683 young adults in the United States was done, after fourteen days of full closure; the findings revealed that their emotional well-being was not fully dependent on their adherence to social separation. Various mental disorders have been observed, despite the evident inspiration of social seclusion.

Anxiety levels in young individuals have been reported to be higher and greater. The most visible signs of stress are in everyday life (Oosterhoff *et al.*, 2020).

In another study in a British involving 27 members surveyed five groups were studied during the lock and socioeconomic deprivation Within a brief time of using this technique of implementation, community isolation had serious negative effects on affluence and interpersonal well-being, notably for people with economic challenges. Reduced social interaction, financial difficulties, and routine changes are the mental effect (Williams *et al.*, 2020).

according to a recent study in Ethiopia, More than half of medical professionals reported a high degree of perceived anxiety (51.6%), The participant medical students are more anxious than other students of other subjects (Olum *et al.*, 2020). Several studies have suggested that the prevalence of mental health problems in university students in Saudi Arabia was high before the SARS-CoV-2 pandemic. Al Bahhawi et al. found that 34.3% of university students at Jazan University in Saudi Arabia have experienced stress, 65.7% anxiety, and 53.6% have experienced moderate (Alyoubi *et al.*, 2021).

**The Objectives of the study :**

This study aims to:

1- Assess the perceived stress during online learning for students of Kerbala University during the COVID-19 pandemic.
2- know the association between demographic variations with online learning problems.

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# Chapter Two

# Subjects

# And

# Methods

**SUBJECTS AND METHODS :**

**Study design setting and time:**

A cross-sectional descriptive study was conducted from the first of March 2022 to the end of April 2022.

**Study participants:**

The students are the participants in an online learning study, including 5 colleges for 500 students at the University of Kerbala.

**Data collection:**

After providing oral consent to 510 students and after displaying the objective of this study for the students, each participant received a questionnaire sheet.

The anonymity of the participating students was taken into consideration, and 500 students aged above 18 years old were collected. Data collection was conducted 2 days a week. We distributed questionnaire sheets to the students in the classes before or after the lecture.

Five colleges were randomly selected from the University of Kerbala collected, By placing a box containing the choices of all medical and non-medical colleges in the University of Kerbala, these included 100 students from the College of Medicine, 100 students from the College of Engineering (Civil Department), 100 students from the College of Applied Medical Sciences (Department analytics ), 100 students from the College of Physical Education and Sports Sciences, and 100 students from the College of Education for Human Sciences (Department of psychology).

However, at the end of the survey, a total of 500 samples had been collected.

to calculate the sample size, The number of questionnaire forms returned was 500 from the total number of 510, ten forms were excluded from the final analysis due to incomplete survey forms. The sample size was calculated using the sample size calculation by using Rasoft website (Sample size calculator, 2022 ) or a population survey With a 95% confidence interval and a 5 % margin of error, making a response rate of 98%. Based on the above estimation method, 384 people made up the bare minimal sample size. But by the time the survey was over, 500 samples had been gathered, more than the study's required minimum.

**Inclusion criteria:**

● Students in the University of Kerbala aged over 18 years old and less than 30 years

**Exclusion criteria:**

● Participants who did not complete the questions of the survey were excluded from the study.

● the first and sixth stages were excluded from the study

**Questionnaire development:**

Under the guidance of psychiatrists, the questionnaire was sent to two psychiatric, and the questionnaire was created in English and then translated into Arabic to suit their language and reviewed many times in both languages by the research team. The supervisor checked the data to ensure that it had been gathered and saved properly during 2 weeks period.

A structured questionnaire with 30 questions, designed into 3 parts, was created:

The first part consisted of 11 items related to personal and social information includes ( age, gender, marital status, income status, level of the stage, college, living with both parents, residence, living, accommodation type, and the number of family members).

The second part contained academic variables with 9 items ( problems with the online class or electronic problems ) related to the use of smart devices and the internet and its obstacles, Each answer was graded on a Likert scale of 1 (strongly disagree) to 5 for each item (strongly agree), the total score was the sum of the scores 45 points, less than 22.5 with no electronic problem, from 23-33.5 average, more than 34 electronic problems. A questionnaire was selected from different articles (Medicine *et al.*, 2021), (Awoke *et al.*, 2021). with some modifications.

The third part of the psychological variables included 10 items to find out the extent of their psychological impact during the electronic study during the Corona period pandemic according to the perceived stress scale (PSS-10) was scored ranging from never (0) to frequently (4), (Awoke *et al.*, 2021).

## Scales of the Perceived Stress Scale (PSS-10):

(referring to the frequency of stressful events that occur during the month).

The Perceived Stress Scale (PSS) is a well-known method for evaluating stress. Although it was created in 1983, the tool is still a common option for assisting in comprehending how various factors affect feelings and perceptions of stress. This scale asks about emotions and ideas from the last month. There are distinctions between the questions although some of them are similar, therefore should approach each one as a different question (Scale, Perceived and Scale, 1983).

 For each question choose from the following alternatives:

0 – never   1 - almost never   2 – sometimes   3 - fairly often   4 - very often
Respondents rate each item on a five-point scale ranging from "never (0)" to "frequently (4)". The scores for the component items that are negative should be reversed,  reverse your scores for questions 4, 5, 7, and 8.
On these 4 questions, change the scores like this:
$$0 = 4 , 1 = 3 , 2 = 2 , 3 = 1 , 4 = 0$$

Individual scores on PSS range from 0 to 40, with a higher score indicating higher perceived stress

► Scores ranging from 0-13 would be considered low stress.
► Scores ranging from 14-26 would be considered moderate stress.
► Scores ranging from 27-40 would be considered high perceived stress.

The total score could put them in a good or bad position, depending on their perception. One of those people is in the low-stress group, whereas the total score may put the second person in the high-stress category.

## Pilot study:

An experimental sample of 20 participants was conducted to test the reliability of the questions, the time required to answer the questions, and to overcome any difficult issues that might arise during data collection. The average time required to complete the questionnaire filled out by the participant is approximately 5-10 minutes Responses obtained in the pilot study were not included in the final analysis.

## Time table:

| MONTHS | 1-2 | 3-4 | 5-6 | 7-8 | 9-10 | 11-12 |
|---|---|---|---|---|---|---|
| Activity | Questionnaire | Data collection | Data analysis | Revision | Discussion | Finishing |

## Ethical consideration:

The survey was conducted after ethical approval by the Research Ethics Committee at the College of Medicine- University of Kerbala. The study protocol was reviewed and approved by the Ethics Committee of the College of Medicine. During the

process of gathering study data, participants' consent was obtained. At the beginning of the questionnaire, verbal and written informed consent was obtained. To obtain their informed consent, participants were told to study the objectives. Participants were also made aware that their data be kept confidential and their names would stay anonymous.

## Data Analysis:

All data were entered into the Microsoft Excel spreadsheet and then loaded and coded into statistical analysis which was performed by using the Statistical Package for the Social Sciences (SPSS) version 22 software. Continuous variables were expressed as mean and standard deviation and categorical variables as numbers (percentage). The statistical tests used in the current study were the T. test for less than 3 variables. ANOVA for $\geq 3$ variables. According to definitions, demographic traits constituted the independent variables and perceived stress was the dependent variable. A P-value of less than 0.05 was considered to be of statistical significance.

# Chapter Three

# Results

# Results:

In a cross-sectional study of 500 students, the mean age was ($21.62 \pm 2$) years old, (67.8%) of candidates are females, (96.6%) of them are below 20 years old, (85%) they are unmarried, (65.2%) are average monthly income, (40%) of candidates are $2^{nd}$ class level, (87.4%) of them live with parents, (85.2%) of candidates live in urban, (86%) of them live inside Kerbala, (92.2%) of candidates have own home, (89.2%) of them live with 4-10 persons in the home, as shown in Table 1.

**Table (1): distribution of variables included in the current study**

| variables | | frequency | percentage |
|---|---|---|---|
| **Gender** | *Male* | 161 | 32.2 |
| | *Female* | 339 | 67.8 |
| **Age Group/ Years** | *<25* | 483 | 96.6 |
| | *=>25* | 17 | 3.4 |
| **Marital State** | *Married* | 75 | 15.0 |
| | *Unmarried* | 425 | 85.0 |
| **Economic Situation** | *Weak* | 32 | 6.4 |
| | *Average* | 326 | 65.2 |
| | *Good* | 142 | 28.4 |
| **Level Stage** | *2nd* | 200 | 40.0 |
| | *3rd* | 50 | 10.0 |
| | *4th* | 200 | 40.0 |
| | *5th* | 50 | 10.0 |
| **Colleges** | *Medicine* | 100 | 20.0 |
| | *Applied Medical Sciences* | 100 | 20.0 |
| | *Physical Education And Sport Science* | 100 | 20.0 |
| | *Engineer* | 100 | 20.0 |
| | *Education For Human Sciences (Psychology)* | 100 | 20.0 |
| **Live With Parents** | *Yes* | 437 | 87.4 |
| | *No* | 63 | 12.6 |
| **Place Of Living** | *Urban* | 426 | 85.2 |
| | *Rural* | 74 | 14.8 |
| **Province Living** | *Inside Kerbala* | 430 | 86.0 |
| | *Outside Kerbala* | 70 | 14.0 |
| | *Own* | 461 | 92.2 |

| Accommodation Type | Rented | 39 | 7.8 |
|---|---|---|---|
| No. Of A Family Live You | 1-3 | 24 | 4.8 |
|  | 4-10 | 446 | 89.2 |
|  | >10 | 30 | 6.0 |

In Figure 1; the distribution of level of stress, (64.6%) of candidates have a high level of stress,  (34%) of them have a moderate level of stress, and (1.4%) have a low level of stress. Mean ± SD (34.33 ± 4.85), Minimum 17, Maximum  45.
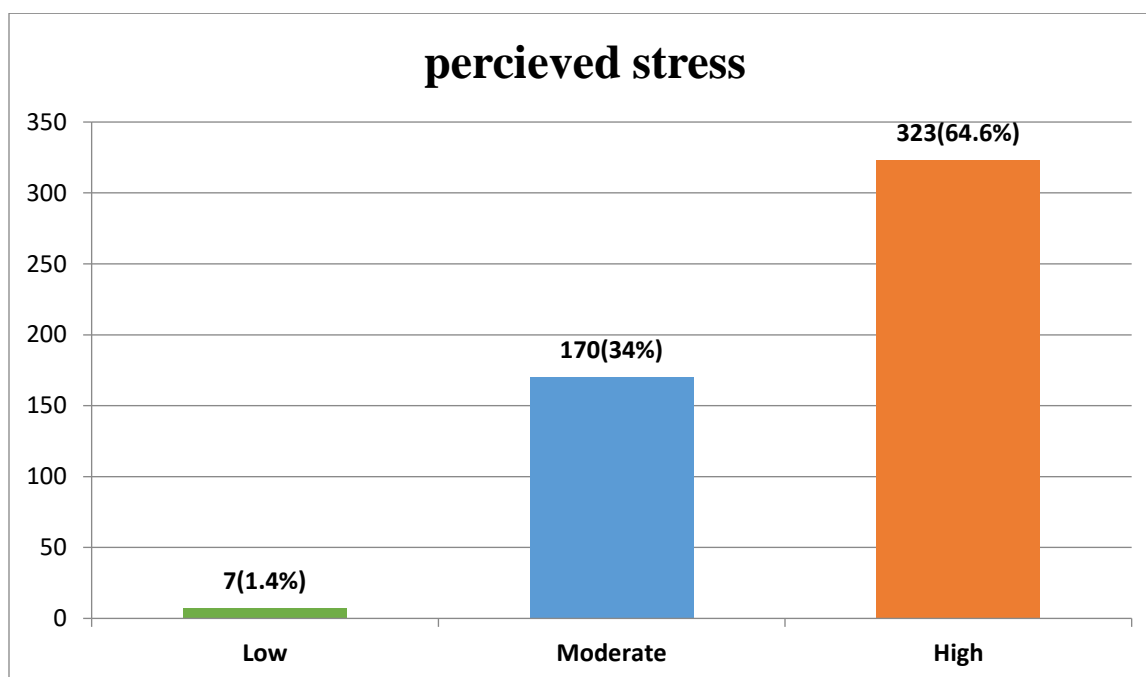


**Fig 1: Distribution of level of perceived stress**

There is a significant difference in the mean of problems in the use of electronic devices, married candidates have more problems than unmarried, poor income is more problematic than good income, the 2nd stage has more problems than 5th, and also the 4th stage is more problematic than 5th. Sports College has more problems than Medicine College also Psychology College is more problematic than Medicine

in the use of the smart device. There is no significant difference in the mean of problems in the use of the electronic device and other variables, as in Table 2.

**Table (2): Difference between the mean of online learning problems according to variables in the current study**

| Variables | | N | Electronic Mean ± SD | | P-value |
|---|---|---|---|---|---|
| Gender | *Male* | 161 | 34.30 | 4.7 | 0.906 |
| | *Female* | 339 | 34.34 | 4.9 | |
| Marital State | *Married* | 75 | 35.21 | 4.1 | **0.046*** |
| | *Unmarried* | 425 | 34.17 | 4.9 | |
| Economic Situation | *Poor* | 32 | 34.84 | 4.2 | **0.005*** |
| | *Average* | 326 | 34.79 | 4.7 | |
| | *Good* | 142 | 33.14 | 5.0 | |
| *Post Hoc Significant (Average And Good)* | | | | | |
| Stage Level | *2nd* | 200 | 34.78 | 4.6 | **0.006*** |
| | *3rd* | 50 | 34.10 | 4.9 | |
| | *4th* | 200 | 34.49 | 4.9 | |
| | *5th* | 50 | 32.12 | 4.8 | |
| *Post Hoc Significant (5th And 2nd, 5th And 4th)* | | | | | |
| College | *Medicine* | 100 | 33.11 | 5.0 | **0.035*** |
| | *Laboratory* | 100 | 34.32 | 4.7 | |
| | *Sport* | 100 | 35.05 | 4.8 | |
| | *Engineer* | 100 | 34.20 | 5.0 | |
| | *Psychology* | 100 | 34.96 | 4.4 | |
| *Post Hoc Significant (Medicine And Sport, Medicine And Psychology)* | | | | | |
| Living With | *Yes* | 437 | 34.23 | 4.9 | 0.160 |
| | *No* | 63 | 35.02 | 4.0 | |
| Place | *Urban* | 426 | 34.22 | 4.9 | 0.235 |
| | *Rural* | 74 | 34.96 | 4.5 | |
| Kerbela | *Inside* | 430 | 34.27 | 4.8 | 0.522 |
| | *Outside* | 70 | 34.69 | 4.8 | |
| Accommodation | *Own* | 461 | 34.29 | 4.9 | 0.40 |
| | *Rented* | 39 | 34.79 | 3.5 | |
| Age | *<25* | 483 | 34.26 | 4.8 | 0.077 |
| | *=>25* | 17 | 36.35 | 4.4 | |
| No. Of Persons | *1-3* | 24 | 36.00 | 3.8 | 0.065 |
| | *4-10* | 446 | 34.15 | 4.9 | |
| | *>10* | 30 | 35.60 | 4.3 | |

**Statistics: N = 500 , T. test= for less than 3 variables , One-way ANOVA for ≥ 3 variables**

There is a significant association between stress levels and college, (with 24.1%) having high-stress levels in candidates of engineering college and (20.7%) having high-stress levels in candidates of laboratory diagnosis college while (42.9%) of candidates have no stress in medical college.

There is no significant association between stress level and other variables in the current study, as in Table 3.

**Table 3: Association between variables and stress**

| variables | | Stress | | | P-value |
|---|---|---|---|---|---|
| | | *Low* | *Moderate* | *High* | |
| **Gender** | *Male* | 3 (42.9%) | 49 (28.8%) | 109 (33.7%) | 0.450 |
| | *Female* | 4 (57.1%) | 121 (71.2%) | 214 (66.3%) | |
| **Marital State** | *Married* | 0 (0.0%) | 26 (15.3%) | 49 (15.2%) | 0.533 |
| | *Unmarried* | 7 (100.0%) | 144 (84.7%) | 274 (84.8%) | |
| **Economic Situation** | *Poor* | 1 (14.3%) | 10 (5.9%) | 21 (6.5%) | 0.555 |
| | *Average* | 3 (42.9%) | 106 (62.4%) | 217 (67.2%) | |
| | *Good* | 3 (42.9%) | 54 (31.8%) | 85 (26.3%) | |
| **Stage Level** | *2nd* | 1 (14.3%) | 65 (38.2%) | 134 (41.5%) | 0.256 |
| | *3rd* | 1 (14.3%) | 12 (7.1%) | 37 (11.5%) | |
| | *4th* | 3 (42.9%) | 73 (42.9%) | 124 (38.4%) | |
| | *5th* | 2 (28.6%) | 20 (11.8%) | 28 (8.7%) | |
| **College** | *Medicine* | 3 (42.9%) | 32 (18.8%) | 65 (20.1%) | **0.005*** |
| | *Applied Medical Scie* | 3 (42.9%) | 30 (17.6%) | 67 (20.7%) | |
| | *Sport* | 1 (14.3%) | 46 (27.1%) | 53 (16.4%) | |
| | *Engineer* | 0 (0.0%) | 22 (12.9%) | 78 (24.1%) | |
| | *Psychology* | 0 (0.0%) | 40 (23.5%) | 60 (18.6%) | |
| **Live With Parents** | *Yes* | 6 (85.7%) | 143 (84.1%) | 288 (89.2%) | 0.272 |
| | *No* | 1 (14.3%) | 27 (15.9%) | 35 (10.8%) | |
| **Place Of Living** | *Urban* | 7 (100.0%) | 137 (80.6%) | 282 (87.3%) | 0.075 |
| | *Rural* | 0 (0.0%) | 33 (19.4%) | 41 (12.7%) | |
| **Province Living** | *Inside* | 5 (71.4%) | 148 (87.1%) | 277 (85.8%) | 0.496 |
| | *Outside* | 2 (28.6%) | 22 (12.9%) | 46 (14.2%) | |
| **Age Group** | *<25* | 7 (100.0%) | 162 (95.3%) | 314 (97.2%) | 0.474 |
| | *≥25* | 0 (0.0%) | 8 (4.7%) | 9 (2.8%) | |
| **Live With You** | *1-3* | 0 (0.0%) | 13 (7.6%) | 11 (3.4%) | 0.205 |
| | *4-10* | 7 (100.0%) | 149 (87.6%) | 290 (89.8%) | |
| | *>10* | 0 (0.0%) | 8 (4.7%) | 22 (6.8%) | |
| **Accommodation** | *Own* | 6 (85.7%) | 157 (92.4%) | 298 (92.3%) | 0.815 |
| | *Rented* | 1 (14.3% | 13 (7.6%) | 25 (7.7%) | |

**Statistics: Chi-square test. N =500, * p < 0.05 (significant) compared within groups.**

There is a significant difference among the mean of electronic problems according to stress classification. The post hoc test revealed that a high mean of electronic problems leads to a high-stress level and a low mean of electronic problems leads to a low-stress level.

**Table 4: the difference between the mean of electronic problems according to stress classification**

| Variables | | Electronic | | P-value |
|---|---|---|---|---|
| | | N | Mean ± SD | |
| Stress | *Low* | 7 | 29±4.6 | 0.0001* |
| | *Moderate* | 170 | 33.53±4.9 | |
| | *High* | 323 | 34.86±4.6 | |

# Chapter Four
# Discussion

## DISCUSSION

 The current study is an exploration of stress Levels among undergraduate students to find the association between stress with their variables during university closures after the rapid spread of the COVID-19 pandemic in Kerbala, Iraq. In this study, 500 students, mean age of $(21.62 \pm 1.9)$ years old, the female's number about $(339, 67.8\%)$, and the male about $(161, 32.2\%)$, This is similar to the study which showed that the main gender is female and means the age of $(22.8 \pm 1.9)$ years old in Ethiopia (Awoke *et al.*, 2021).

In the current study, most students are unmarried 85%. According to Iraqi cultural norms, students prefer to get married after graduating, most of them are an average monthly income, and they live with their parents about $(87.4\%)$ the majority living in Kerbala governorate and being single. The number of students in the urban appeared more than in the rural about $(85.2\%)$ because of the accessibility of facilities, services, and job opportunities. The population is more densely distributed in cities than in rural areas. All these results are similar to other studies done in Ethiopia, India, and Saudi Arabia (Awoke *et al.*, 2021),(Ahmed and Prashantha, 2018),(Al-Qahtani and Alsubaie, 2020),(AlAteeq, Aljhani and AlEesa, 2020) respectively.

 In the current study, the distribution of levels of stress moderate to high levels of stress candidates about $(34\%)$ and $(64.6\%)$ respectively. This is also similar to the study on the prevalence of high perceived stress in Turkey, Bangladesh, Iraq, Saudi Arabia, Palestine, and India (Aslan *et al*., 2020),(Kabir, *et al*., 2021),(Tuffah and Al-Jubouri, 2021),(Alyoubi *et al.*, 2021),(Radwan, 2021),(Al-Zeyadi and Mohammed, 2019) respectively. while a study done in China and Cyprus (Liu *et al.*, 2021)(Solomou *et al.*, 2021) doesn't agree with these results (low perceived stress). The explanation for these results that lead to high perceived stress among students

could be due to many reasons that include frequent internet interruption during the exam,distractions during online learning at home,(problems of network accessibility, connectivity, lack of synchrony between audio and video, and audio disturbance), the difficulty in using smart devices, There is little interaction with teachers during e-learning that may be (due to the distance and lack of attention) and finally reasons due to the spread of the Corona pandemic (hearing about the news of deaths and fear of being infected by his or any member of his family with corona).

In the current study, there is a significant difference in electronic problems during online learning, married candidates have more problems than unmarried, These results are similar to another study in Oman (Malik, 2021). In contrast with this result in Nigeria (Tafamel and Adekunle, 2016), The finding explains that married people are busy with home and children matter and do not have enough time to use smart devices.

 Among the salary categories, there were statistically significant differences between the electronic problem and income ($p<0.05$). The low salary is a more problem than the average and good salary, This result agrees with the result of another study in Denmark (Nortvig *et al*., 2018) and disagrees with this result in Turkey (Aslan and Akturk, 2018). The explanation for this result could be due to the note that during the COVID-19 lockdown, low-income families had limited access to the necessities of life. Due to the lockout and losing a job, the majority of families lose their daily income, making it difficult for them to provide their family with the needs such as lack of electricity, poor internet and their inability to buy advanced smart devices.

This current study also revealed that students' problems with e-learning were significant differences between academic stages, 2$^{nd}$ stage had more problems than 5$^{th}$ and also 4$^{th}$ stage was more problematic than the 5$^{th}$, These results matched with other studies in Turkey and Oman (Sezer, 2016), (Malik, 2021). Contrariwise this

study was in Poland (Bączek *et al.*, 2021). These results explain, That the initial stage has more problems with electronic learning because of a lack of prior experience, and practical and technical difficulties accessing materials online.

 The findings regarding the electronic problems with colleges showed that there was a significant difference between them, The college of physical education and Sport Science has more problems than the College of Medicine, also the College of Education for human sciences is more problematic than the College of Medicine, These findings are consistent with findings of other studies in India and northeast China (Panchal *et al.*, 2022), (Wang *et al.*, 2022). These differences between colleges may be due to their difference in knowledge and experiences, multifactor analysis found that the ability to learn cooperatively and the process of learning from others, whether it is high or low, can help the learning process for promoting.

The current study shows no significant difference between the mean of problems in the use of the electronic device with other variables, such as age, gender, place of living, family number, accommodation type, and living with parents, These results are consistent with results of studies in Nigeria (Owate *et al.*, 2017). and contrast to a study, in Malaysia (Islam *et al.*, 2011).

 Age wasn't a significant difference in electronic problems, similar to this study in Yemen (Aldowah *et al.*, 2017). In contrast, these results in Nigeria (Tafamel and Adekunle, 2016) show younger age groups have more problems than others. Explanation of these findings, because the study population's age range was so limited.

Gender also was not found to be a significant predictor of e-learning problems, similar to these results in Saudi Arabia (Al-Salamat *et al*., 2021),  Feelings have nothing to affect anxiety during the electronic study, so gender has nothing to relate, contrast these results in numerous studies that stated, females, have more problems

than males in e-learning problems such as in Mexico (Fuente *et al.*, 2021), Other studies showed that males have more problems than females such as in Nigeria (Tafamel and Adekunle, 2016).

 Regarding the place of living which show no significant difference in electronic problems, similar to this study in Cyprus (Solomou *et al.*, 2021), and contrariwise from these results in China (Yu *et al.*, 2021), which show rural areas are more significant electronic problems than urban area.

In the current study, there is a significant association between college and perceived stress, this finding agrees with East China (Chang *et al.*, 2021), This explains the main reasons were a lack of interaction, a technical problem with  IT equipment, poor communication between learners and educator, and distraction from the home environment, so the difference in students' anxiety between colleges was clarified by the high level of stress, where the College of Engineering department of civil showed the highest perceived stress among colleges about (24.1%), similar to this study in Oman (Malik, 2021). Due to a lack of interaction between learners and students, thus the solution steps are not sequenced while solving mathematical problems, as in the traditional system, followed by the College of applied medical science department of analytic showed (20.7%) stress due to low acceptance of laboratory and clinical classes in form of e-learning, followed by the College of Medicine showed (20.1%) stress due to the lack of contact with real patients may result in an insufficient gain of practical skills, an inability to communicate with patients, more misunderstandings, and inappropriate treatment, similar to a study in Poland (Dyrek *et al.*, 2022) and contrast this study in china (Chang *et al.*, 2021) .also, the College of Human Sciences, Department of Psychology appeared the less stress about (18.6%), due to its main reliance on theoretical lectures. Finally, the College of physical education and sport sciences appeared (16.4%) because students depend

mainly on the practical application of exercise and physical activities, so online learning study has caused stressors, additionally due to the participation in sports, which made them less anxious than the other colleges.

In the current study, there is no significant association between stress level with other variables such as age, gender, income, class level, and living place.

Gender was not found to be a significant predictor of reported stress. Consistent with this finding in Spain and India (Codina *et al.*, 2020),(Rehman *et al.*, 2021) but other studies have shown that women experience more stress than men in Saudi (AlAteeq *et al.*, 2020), and Turkey (Aslan *et al.*, 2020), other studies show males have higher stress than females in China (Liu *et al.*, 2021).

In the current study, the age was not significantly consistent with these results in Bangladesh, and the USA (Kabir *et al.*, 2021), (Ke and Kwak, 2013), due to the narrow age range between (18-30 years) contrariwise in Japan (Horita, *et al.*,2021).

Income was not significant association with stress level in the current study, but other studies showed that students with a low income had high perceived stress in comparison with high income such as in Brazil (Mussi *et al.*, 2020).

Regarding the number of families, there is no significant association in the current study, This finding is consistent with a study report from Ethiopia (Awoke *et al.*, 2021), while contrariwise this study is in Italy (Flesia *et al.*, 2020).

The class level and place of living were not significant in this current study, similar to this study in Mexico (Fuente *et al.*, 2021), Contrariwise to Cyprus (Kyprianidou *et al.,* 2021), which shows that stress was significantly higher for students from urban areas compared with rural areas. Marital status was not significant in this study as in Bangladesh (Islam *et al*., 2020).

The current study stated that there is a significant difference between the mean of the electronic problem according to stress classification. The high mean of electronic

problems lead to high-stress level and the low mean of electronic problems lead to low-stress level. (29±4.6 for low, 33.53±4.9 for moderate, 34.86±4.6 for high). Two-thirds of electronic problems have moderate to high levels of stress (33.53), (and 34.86) respectively. for most students have moderate to high-stress levels of e-learning, These are also compatible with B. Lazarevica and D. Bentz who stated that most students have higher stress levels of e-learning than students who have conventional campus-based learning, This finding is consistent with other studies in the USA ( United States of America) , New Zealand, Jordan, and Greece (Lazarevic and Bentz, 2021), (Jowsey *et al.*, 2020), (Tubaishat, 2014), and (Giannopoulou *et al.*, 2021).

Contrariwise the current study show about (13%) mild to moderate levels of e-learning stress in Egyptians (Adel, 2017), before the pandemic, this variation could be explained by variations in the geographic location, the timing of the experiment, and the technologies that are present.

## Limitation :

1- Using a cross-sectional study restricts the generalizability of its results, and the studied sample size does not represent the whole province which might create selection bias.

2- In this study, the sample was taken from five colleges only so we could have missed some colleges of the population that could have changed the study results, predisposing us to a residual confounding bias.

3- the data was collected in the last days of the academic year, as the attendance sessions were converted to electronic, and therefore there was difficulty in the presence of students.

# Chapter Five

# Conclusions
# and Recommendation

## Conclusions:

1- More than two third of our students had a high level of perceived stress and more than one-fourth had a moderate level of perceived stress during the outbreak of COVID-19 undergraduate students at Kerbala University

2- There is a significant association between stress level and college, a high-stress level in candidates from the College of Engineering (Civil Department), the College of Applied Medical Sciences (Department Analytics), the College of Medicine, and the College of Education for Human Sciences (Department of psychology). and last one the College of Physical Education and Sports Sciences respectively.

3- There is a significant difference between the mean of online learning problems according to stress classification. The high mean of electronic problems lead to high-stress level and the low mean of electronic problems lead to low-stress level. In addition, the electronic problem was significantly correlated with unmarried, poor income, $2^{nd}$ stage, and College (College of Physical Education and Sports Sciences).

## Recommendations:

1- encourage educators, learners; university administration, students, and parents to better understand how the present online learning environment is affecting students' education today.

2- The need to conduct experimental electronic exams for students in front of the teacher to learn quickly and relieve stress and anxiety.

3- training faculty members to conduct electronic exams. Several bodies can benefit from this study, such as the Ministry of Education, the Ministry of Higher Education, universities, educational institutions, students, teachers, university professors, and society in general, due to the importance of education in all its forms in the development and development of societies.

# References

# Reference

Abdulsattar, B. O. Saad Taha Mutlk , Ian M Jones and Jones, I. M. (2021) 'The Pandemic of COVID-19: Current Scheme of Iraq (24 February-8 August 2020)', *Rafidain Journal of Science*, 30(1), pp. 11–17.

Adel, R. (2017) 'Manage perceived e-learning quality in Egyptian context', *Total Quality Management & Business Excellence*, 28(5–6), pp. 600–613.

Ahmed, M. and Prashantha, B. (2018) 'Perceived stress and source of stress among undergraduate medical students of Government Medical College, Mysore', *Int J Community Med Public Health*, 5(8), pp. 3513–3518.

Al-Qahtani, M. F. and Alsubaie, A. S. R. (2020) 'Investigating stress and sources of stress among female health profession students in a Saudi University', *Journal of multidisciplinary healthcare*, 13, p. 477.

Al-Salamat, M. K. M., Alsowat, H. H. and Al-roqil, R. M. (2021) 'The Effectiveness of Distance Learning (BlackBoard) in Pursuing the Educational Process at Taif University during the COVID-19 Pandemic from the Viewpoints of Teachers and Students', *Tobacco Regulatory Science*, 7(5), pp. 1772–1783.\

Al-Zeyadi, S. and Mohammed, S. H. (2019) 'Measures Academic Stress among Undergraduate Nursing Students.', *Indian Journal of Forensic Medicine & Toxicology*, 13(4).

AlAteeq, D. A., Aljhani, S. and AlEesa, D. (2020) 'Perceived stress among students in virtual classrooms during the COVID-19 outbreak in KSA', *Journal of Taibah University Medical Sciences*, 15(5), pp. 398–403. doi: 10.1016/j.jtumed.2020.07.004.

Aldowah, H., Hanan Aldowah, Samar Ghazal, Irfan Naufal Umar, Balakrishnan Muniandy . (2017) 'The impacts of demographic variables on technological and contextual challenges of e-learning implementation', in *Journal of Physics: Conference Series*. IOP Publishing, p. 12013.

Ali, W. (2020) 'Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic.', *Higher education studies*, 10(3), pp. 16–25.

Alyoubi, Azizah Alyoubi, Elizabeth J Halstead, Zoe Zambelli, Dagmara Dimitriou A. (2021) 'The Impact of the COVID-19 Pandemic on Students ' Mental Health and Sleep in Saudi Arabia'.

Arabia, S. (2020) 'Online Learning during the COVID- 19 Pandemic and Academic Stress in University Students', 12, pp. 100–107.

Asha,M. , MA Antony, MA Mathew, MA Baby, MA Sunny . (2017) 'Attitude towards e-learning among nursing students of selected nursing colleges of mangaluru', *Am Int J Res Humanit Arts Soc Sci*, 20(1), pp. 17–432.

Aslan, H. and Akturk, U. (2018) 'Nursing education stress levels of nursing students and the associated factors.', *Annals of Medical of Research*, 25(4).

Aslan, I., Ochnik, D. and Çınar, O. (2020) 'Exploring Perceived Stress among Students in Turkey during the COVID-19 Pandemic'.

Awoke, M., Girma Mamo, Samuel Abdu, Behailu Terefe . (2021) 'Perceived Stress and Coping Strategies Among Undergraduate Health Science Students of Jimma University Amid the COVID-19 Outbreak : Online Cross-Sectional Survey', 12(March), pp. 1–11. doi: 10.3389/fpsyg.2021.639955.

Bączek, M. Michalina Zagańczyk-Bączek, Monika Szpringer, Andrzej Jaroszyński,

Beata Wożakowska-Kapłon. (2021) 'Students' perception of online learning during the COVID-19 pandemic: a survey study of Polish medical students', *Medicine*, 100(7).

Bahrambeygi, F, D Shojaeizadeh, R Sadeghi, S Nasiri, E Ghazanchaei. (2018) 'The effectiveness of an e-learning program on nurse's knowledge and behavior for caring of patients with thromboembolism: a comparative study', *J Nurs Healthcare Manag 1: 105 Abstract Keywords: E-learning*.

Bloomfield, J., Roberts, J. and While, A. (2010) 'The effect of computer-assisted learning versus conventional teaching methods on the acquisition and retention of handwashing theory and skills in pre-qualification nursing students: a randomised controlled trial', *International Journal of nursing studies*, 47(3), pp. 287–294.

Chang, W., Liu Zhang, Li-ying Wen, Hong Su, Yue-long Jin , (2021) 'Association Between Online Self-Directed Learning Ability and Negative Emotions Among College Students During the COVID-19 Pandemic : A Cross-Sectional Study in Anhui Province , East China', 12(November), pp. 1–10. doi: 10.3389/fpsyg.2021.720911.

Clark, R. C. and Mayer, R. E. (2016) E-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning. john Wiley & sons .

Clift, A. K. Ash K Clift, Carol AC Coupland, Ruth H Keogh, Karla Diaz-Ordaz, Elizabeth Williamson, Ewen M Harrison, Andrew Hayward, Harry Hemingway,.et al . (2020) 'Living risk prediction algorithm (QCOVID) for risk of hospital admission and mortality from coronavirus 19 in adults: national derivation and validation cohort study', bmj, 371.

Codina, N, Isabel Castillo, José V Pestana, Isabel Balaguer, (2020) 'Preventing procrastination behaviours: teaching styles and competence in university students', Sustainability, 12(6), p. 2448.

Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24, 385-396.

Dangi, R. R. and George, M. (2020) 'Psychological perception of students during COVID-19 outbreak in India', *High Technology Letters*, 26(6), pp. 142–144.

Diehl, K, Charlotte Jansen, Kamila Ishchanova, Jennifer Hilger-Kolb. (2018) 'Loneliness at universities: determinants of emotional and social loneliness among students', *International journal of environmental research and public health*, 15(9), p. 1865.

Dyrek, N., Agnieszka Wikarek, Małgorzata Niemiec, Aleksander J Owczarek, Magdalena Olszanecka-Glinianowicz, *et al.* (2022) 'The perception of e-learning during the SARS-CoV-2 pandemic by students of medical universities in Poland–a survey-based study', *BMC Medical Education*, 22(1), pp. 1–9.

E.Taylor, S. (2015) 'Health psychology 10th edition', *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*, pp. 674–678.

English, Veni Nella Syahputri, Endah Anisa Rahma, Rusma Setiyana, Sari Diana, Firman Parlindungan,.T. *et al.* (2020) 'Online learning drawbacks during the Covid-19 pandemic : A psychological perspective', 5, pp. 108–116. doi: 10.26905/enjourme.v5i2.5005.

Flesia, L. Merylin Monaro, Cristina Mazza, Valentina Fietta, Elena Colicino, Barbara Segatto, Paolo Roma, *et al.* (2020) 'Predicting perceived stress related to the Covid-19 outbreak through stable psychological traits and machine learning models', *Journal of clinical medicine*, 9(10), p. 3350.

Fuente, J. Mónica , Pachón-Basallo, Flavia H Santos, Francisco J Peralta-Sánchez, María Carmen González-Torres, Raquel Artuch-Garde, *et al.* (2021) 'How Has the COVID-19 Crisis Affected the Academic Stress of University Students ? The Role of Teachers and Students', 12(June), pp. 1–16. doi: 10.3389/fpsyg.2021.626340.

Gale, S. D. , Andrew N Berrett, Lance D Erickson, Bruce L Brown, Dawson W Hedges. (2018) 'Association between virus exposure and depression in US adults', *Psychiatry research*, 261, pp. 73–79.

Giannopoulou, I. Vasiliki Efstathiou, Georgia Triantafyllou, Panagiota Korkoliakou,

Athanassios Douzenis, *et al.* (2021) 'Adding stress to the stressed: Senior high school students' mental health amidst the COVID-19 nationwide lockdown in Greece', *Psychiatry Research*, 295, p. 113560.

Goff, A.-M. (2011) 'Stressors, academic performance, and learned resourcefulness in baccalaureate nursing students', *International journal of nursing education scholarship*, 8(1).

Hadler, N. (2020) 'Coping with the COVID-19 Pandemic as a College Student'.

Hammen, C., Kim, E.Y., Eberhart, N.K. and Brennan, P.A., 2009. Chronic and acute stress and the prediction of major depression in women. *Depression and anxiety*, *26*(8), pp.718-723.

Horita, R., Nishio, A. and Yamamoto, M. (2021) 'The effect of remote learning on the mental health of first year university students in Japan', *Psychiatry research*, 295, p. 113561.

Hughes, S. C, Leah Wickersham, David L Ryan-Jones, Sara A Smith. (2002) 'Overcoming social and psychological barriers to effective on-line collaboration', *Journal of Educational Technology & Society*, 5(1), pp. 86–92.

IESALC, U. (2020) 'Report "COVID-19 and higher education: Today and tomorrow. Impact analysis, policy responses and recommendations"'.

Islam, M., Noor Asliza Abdul Rahim, Tan Chee Liang, Hasina Momtaz. (2011) 'Effect of demographic factors on e-learning effectiveness in a higher learning Institution in Malaysia.', *International Education Studies*, 4(1), pp. 112–121.

Islam, M. S., Ferdous, M. Z. and Potenza, M. N. (2020) 'Panic and generalized anxiety during the COVID-19 pandemic among Bangladeshi people: An online pilot survey early in the outbreak', *Journal of affective disorders*, 276, pp. 30–37.

Jee, Y. (2020) 'WHO international health regulations emergency committee for the

COVID-19 outbreak', *Epidemiology and health*, 42.

Jiang, R. (2020) 'Knowledge, attitudes and mental health of university students during the COVID-19 pandemic in China', *Children and youth services review*, 119, p. 105494.

Jowsey, T., Gail Foster, Pauline Cooper-Ioelu, Stephen Jacobs. (2020) 'Blended learning via distance in pre-registration nursing education: A scoping review', *Nurse education in practice*, 44, p. 102775.

Kabir, H., Hasan, M. K. and Mitra, D. K. (2021) 'E-learning readiness and perceived stress among the university students of Bangladesh during COVID-19: a countrywide cross-sectional study', *Annals of medicine*, 53(1), pp. 2305–2314.

Ke, F. and Kwak, D. (2013) 'Online learning across ethnicity and age: A study on learning interaction participation, perception, and learning satisfaction', *Computers & education*, 61, pp. 43–51.

Kyprianidou, M., Christophi, C. A. and Giannakou, K. (2021) 'Perceived Stress During the COVID-19-Related Confinement in', 9(June), pp. 1–8. doi: 10.3389/fpubh.2021.673411.

Lazarevic, B. and Bentz, D. (2021) 'Student perception of stress in online and face-to-face learning: the exploration of stress determinants', *American Journal of Distance Education*, 35(1), pp. 2–15.

Liu, Z. Rongxun Liu, Yue Zhang, Ran Zhang, Lijuan Liang, Yang Wang, Yange Wei., *et al.* (2021) 'Association between perceived stress and depression among medical students during the outbreak of COVID-19 : The mediating role of insomnia', *Journal of Affective Disorders*, 292, pp. 89–94. doi: 10.1016/j.jad.2021.05.028.

Madan, A., Bindal, S. and Gupta, A. K. (2021) 'Social distancing as risk reduction strategy during COVID-19 pandemic: A study of Delhi-NCT, India', *International Journal of Disaster Risk Reduction*, 63, p. 102468.
Malik, M. (2021) 'Perceived stress among university students in Oman during COVID-19-induced e- learning', 7.

Marelli, Alessandra Castelnuovo, Antonella Somma, Vincenza Castronovo, Samantha Mombelli, Daniela Bottoni, S. *et al.* (2021) 'Impact of COVID-19 lockdown on sleep quality in university students and administration staff', *Journal of neurology*, 268(1), pp. 8–15.

Medicine, C. Manoj Kumar Saurabh, Tejas Patel, Prakash Bhabhor, Parvati Patel, Subodh Kumar., (2021) 'Students' Perception on Online Teaching and Learning during COVID-19 Pandemic in Medical Education', 16(3), pp. 439–444.

Misra, R. and Castillo, L. G. (2004) 'Academic stress among college students: Comparison of American and international students.', *International Journal of stress management*, 11(2), p. 132.

Müller, A. M. Charlene Goh, Li Zhen Lim, Xiaoli Gao. (2021) 'Covid-19 emergency elearning and beyond: experiences and perspectives of university educators', *Education Sciences*, 11(1), p. 19.

Mussi, F. C. Cláudia Geovana da Silva Pires, Rodrigo Marques da Silva, Tássia Teles Santana de Macedo, Carlos Antônio de Souza Teles Santos, *et al.* (2020) 'Stress level among undergraduate nursing students related to the training phase and sociodemographic factors', *Revista Latino-Americana de Enfermagem*, 28.

Nortvig, A.-M., Petersen, A. K. and Balle, S. H. (2018) 'A Literature Review of the Factors Influencing E-Learning and Blended Learning in Relation to Learning Outcome, Student Satisfaction and Engagement', *Electronic Journal of E-learning*, 16(1), pp. pp46-55.

Olum, R., Nakwagala, F. N. and Odokonyero, R. (2020) 'Prevalence and factors associated with depression among medical students at makerere University, Uganda', *Advances in Medical Education and Practice*, 11, p. 853.

Oosterhoff, B. Cara A Palmer, Jenna Wilson, Natalie Shook ,. (2020) 'Adolescents' motivations to engage in social distancing during the COVID-19 pandemic: associations with mental and social health', *Journal of Adolescent Health*, 67(2), pp. 179–185.

WHO (2020) 'International health regulations (2005). 2016', *World Health Organization: Geneva*.

WHO (2021) *Infection prevention and control during health care when coronavirus disease (COVID-19) is suspected or confirmed: interim guidance, 12 July 2021*. World Health Organization.

Owate, C. N., Afolabi, M. and Akanwa, P. C. (2017) 'Demographic Variables and Students Use of E-Learning Resources in Public Secondary Schools Libraries in Rivers State of Nigeria.', *International Journal of Educational Administration and Policy Studies*, 9(2), pp. 10–27

Panchal, V. Punit Patel, Arunkumar Chaudhari, Pawan Goyal. (2022) 'Medical students' perception of online learning during COVID-19 pandemic in India-a survey', *National Journal of Physiology, Pharmacy and Pharmacology*, 12(2), pp. 202–205.

Phillips, A.C. (2013). Perceived Stress. In: Gellman, M.D., Turner, J.R. (eds) Encyclopedia of Behavioral Medicine. Springer, New York, NY. https://doi.org/10.1007/978-1-4419-1005-9_479

Radwan, E. (2021) 'Perceived Stress among School Students in Distance Learning During the COVID-19 Pandemic in the Gaza Strip , Palestine', *Augmented Human Research*, 6(1), pp. 1–13. doi: 10.1007/s41133-021-00050-6.

Radwan, E., Radwan, A. and Radwan, W. (2020) 'The mental health of school students and the COVID-19 pandemic', *Aquademia*, 4(2), p. ep20020.

Rehman, Mohammad G Shahnawaz, Neda H Khan, Korsi D Kharshiing, Masrat Khursheed, Kaveri Gupta, *et al.* (2021) 'Depression, anxiety and stress among Indians in times of Covid-19 lockdown', *Community mental health journal*, 57(1), pp. 42–48.

Sahu, P. (2020) 'Closure of universities due to coronavirus disease 2019 (COVID-19): impact on education and mental health of students and academic staff', *Cureus*, 12(4).

Sample Size Calculator by Raosoft,2022. Inc. http ://www.raosoft.com/samplesize. html.

Scale, P. S., Perceived, T. and Scale, S. (1983) 'Perceived Stress Scale', pp. 7–8.

Sezer, B. (2016) 'Faculty of medicine students' attitudes towards electronic learning and their opinion for an example of distance learning application', *Computers in Human Behavior*, 55, pp. 932–939.

Solomou, I . (2021) 'The COVID- 19 International Student Well-Being Study The Case of Cyprus', 80, pp. 99–110.

Tafamel, A. E. and Adekunle, S. A. (2016) 'Demographic variables and students' academic performance in masters of business administration (MBA) programme', *LAPAI Journal of Management Sciences*, 6(4), pp. 458–465.

Tubaishat, A. (2014) 'An investigation into the attitudes of nursing students toward technology', *Journal of Nursing Research*, 22(2), pp. 119–125.

Tuffah, B. M. and Al-Jubouri, M. B. (2021) 'Academic Stress of E-learning Among Nursing Students during the Pandemic of COVID-19', *Journal of Cardiovascular Disease Research*, 12(4), pp. 353–359.

Wang, J., Weichu Liu, Yunmei Zhang, Shiqi Xie, Bing Yang. (2021) 'Perceived stress among Chinese medical students engaging in online learning in light of COVID-19', *Psychology research and behavior management*, 14, p. 549.

Wang, Y., Mengya Xia, Wenjing Guo, Fangjie Xu, Yadan Zhao . (2022) 'Academic performance under COVID-19: The role of online learning readiness and emotional competence', *Current Psychology*, pp. 1–14.

Williams, S. N. , Christopher J Armitage, Tova Tampe, Kimberly Dienes (2020) 'Public perceptions and experiences of social distancing and social isolation during the COVID-19 pandemic: A UK-based focus group study', *BMJ open*, 10(7), p. e039334.

Wu, H. Shan Li, Juan Zheng, Jianru Guo. (2020) 'Medical students' motivation and academic performance: the mediating roles of self-efficacy and learning engagement', *Medical education online*, 25(1), p. 1742964.

Yasmin, H. (2020) 'Covid 19 : Stress Management among Students and its Impact on Their Effective Learning', 4(2), pp. 65–74.

Yu, L. Long Huang, Hao-ru Tang, Na Li, Ting-ting Rao, Die Hu*et al.* (2021) 'Analysis of factors influencing the network teaching effect of college students in a medical school during the COVID-19 epidemic', *BMC medical education*, 21(1), pp. 1–8.

Zhang, J.-Y. Tao Shu, Ming Xiang, Zhan-Chun Feng. (2021) 'Learning burnout: evaluating the role of social support in medical students', *Frontiers in Psychology*, 12, p. 277.

Zhang, W. Yuxin Wang, Lili Yang, Chuanyi Wang . (2020) 'Suspending classes without stopping learning: China's education emergency management policy in the COVID-19 outbreak', *Journal of Risk and financial management*. Multidisciplinary digital publishing institute, p. 55.

# Appendix

# Appendix – A

الى/ جامعة كربلاء /كلية الهندسة
كلية التربية البدنية والعلوم الرياضية
كلية التربية للعلوم الانسانية
كلية العلوم الطبية التطبيقية
م/ تسهيل مهمة

الصـــادر

تحية طيبة :

يرجـــى تفضـــلكم بتســـهيل مهمـــة طالبـــة الدراســـات العليـــا/دبلوم

عالي/طب اسرة (زهراء رحيم عويز) في مشروع البحث الموسوم:

(Perceived Stress in Distant Learning among undergraduate

College Students During the COVID-19 Pandemic in Kerbala,

Iraq 2022)

لغـــرض اكمـــال متطلبـــات البحـــث، شـــاكرين تعـــاونكم معنـــا خدمـــة

للحركة العلمية في بلدنا العزيز

... مع التقدير ...

أ.م.د.علي عبد الرضا أبو طحين
معاون العميد للشؤون العلمية
10 /2 /2022

**نسخة منه:
- مكتب السيد العميد المحترم للتفضل بالاطلاع مع التقدير.
- مكتب معاون العميد للشؤون العلمية المحترم للتفضل بالاطلاع مع التقدير.
- فرع طب الاسرة والمجتمع. للتفضل بالاطلاع مع التقدير.
- شعبة الدراسات العليا/الحفظ.
- الصادرة.

## item Perceived Stress Scale ١٠ Arabic translation of the

الأسئلة التالية تستفسر عن مشاعرك و أفكارك خلال الشهر الماضي.

لرجو منك الاجابة على جميع الأسئلة ..

| الحالة | اطلاقاً (ابداً) | نادرا | احيانا | كثيراً | دائما (في اغلب الأحيان) |
|---|---|---|---|---|---|
| ١. خلال الشهر الماضي، إلى أي مدى احسست بالانزعاج بسبب حدوث أمر غير متوقع ؟ | | | | | |
| ٢. خلال الشهر الماضي، الى أي مدى احسست بعدم القدرة على التحكم في الأمور الهامة بحياتك ؟ | | | | | |
| ٣. خلال الشهر الماضي، الى أي مدى احسست بالتوتر و الضغط النفسي ؟ | | | | | |
| ٤. خلال الشهر الماضي، الى أي مدى احسست بالثقة في قدرتك على التعامل مع مشاكلك الخاصة ؟ | | | | | |
| ٥. خلال الشهر الماضي، الى أي مدى احسست ان الأمور تسير كما تريد ؟ | | | | | |
| ٦. خلال الشهر الماضي، الى أي مدى وجدت نفسك غير قادر على التأقلم مع كل الأمور الواجب عليك القيام بها ؟ | | | | | |
| ٧. خلال الشهر الماضي، إلى أي مدى تمكنت من التحكم في الأمور التي تزعجك ؟ | | | | | |
| ٨. خلال الشهر الماضي، الى أي مدى احسست بأنك تملك زمام الأمور ( مسيطر على كافة أمورك ) ؟ | | | | | |
| ٩. خلال الشهر الماضي، الى أي مدى احسست بالغضب بسبب أمور خارجة عن تحكمك ؟ | | | | | |
| ١٠. خلال الشهر الماضي، إلى أي مدى احسست بأن الصعاب تتراكم عليك لدرجة أنك لم تعد تستطيع التغلب عليها ؟ | | | | | |

جامعة كربلاء
كلية الطب
فرع طب الأسرة المجتمع

إلى / الدكتور شاكر عبد الرزاق المحترم

م/ تقييم استبانة

تحية طيبة

نظرا للمكانة العلمية والخبرة التي تتمتعون بها نرفق لكم استمارة استبانة مقترحة لرسالة طالبة الدبلوم العالي في طب الاسرة د.زهراء رحيم عويز المبين عنوانها في ادناه، راجين من جنابكم الاطلاع عليها واعطاء ملاحظاتكم القيمة بشأنها ... مع فائق التقدير

Perceived Stress in Distance Learning among undergraguate Students During the COVID-19 Pandemic for the Students of Kerbala university, Iraq 2022

أ.م.د
علي عبد الرضا أبو طحين
استشاري طب الاسرة
٦ / ٢٠٢٢

عنوان الرسالة:

Perceived Stress in Distance Learning among undergraguate Students During the COVID-19 Pandemic for the Students of Kerbala university, Iraq 2022 .

اهداف الرسالة:

This study aimed to assess psychological distress among university students in relation to "e-Learning" during the coronavirus pandemic which was considered as one of the tools for achieving the effectiveness of the quality of E-learning among university students.

الملاحظات:

اسم الخبير: د. شاكر عبد الرزاق جواد
اللقب العلمي: طبيب اختصاص
مكان العمل: مستشفى الرعاية الكندي (ع)
عدد سنوات الخبرة: ١١ سنوات
التوقيع:

شاكر عبد الرزاق جواد
اختصاص الطب النفسي

مقياس الاجهاد الملحوظ
الأسئلة التالية تستفسر عن مشاعرك و أفكارك خلال الشهر الماضي.

| دائما (في أغلب الأحيان) | كثيراً | أحياناً | نادرا | اطلاقاً (ابدأ) | الحالة |
|---|---|---|---|---|---|
| | | | | | 1. خلال الشهر الماضي، إلى أي مدى أحسست بالانزعاج بسبب حدوث شيء ما غير متوقع ؟ |
| | | | | | 2. خلال الشهر الماضي، الى أي مدى أحسست بعدم القدرة على التحكم في الاشياء الهامة بحياتك ؟ |
| | | | | | 3. خلال الشهر الماضي، إلى أي مدى أحسست بالتوتر والضغط النفسي ؟ |
| | | | | | 4. خلال الشهر الماضي، إلى أي مدى أحسست بالثقة في قدرتك على التعامل مع مشاكلك الخاصة ؟ |
| | | | | | 5. خلال الشهر الماضي، الى أي مدى أحسست أن الأمور تسير كما تريد ؟ |
| | | | | | 6.خلال الشهر الماضي، الى أي مدى وجدت نفسك غير قادر على التعامل مع كل الأشياء التي كان عليك القيام بها ؟ |
| | | | | | 7.خلال الشهر الماضي، إلى أي مدى تمكنت من السيطرة على الانزعاج في حياتك ؟ |
| | | | | | 8.خلال الشهر الماضي، الى أي مدى أحسست بأنك على قمة الاشياء ( مسيطر على كافة أمورك) ؟ |
| | | | | | 9.خلال الشهر الماضي، الى أي مدى شعرت بالغضب بسبب أشياء حدثت خارجة عن سيطرتك ؟ |
| | | | | | 10. خلال الشهر الماضي، إلى أي مدى أحسست بأن الصعاب تتراكم بشكل كبير لدرجة أنك لا تستطيع التغلب عليها ؟ |

# Appendix – B  ( Questionnaire form ) :

**FIRST PART  demographic data** :

  • Age: ☐

  • Gender: Male ☐, Female ☐

  • Marital status: married ☐, unmarried ☐

  • Economic status: poor ☐, average ☐, good ☐

  • Class level : 2ⁿᵈ  ☐, 3ʳᵈ ☐, 4ᵗʰ ☐, 5ᵗʰ ☐

  • College: College of Medicine ☐, College of Engineering ☐,

College of Applied Medical Sciences ☐, College of Physical Education and Sport

Sciences ☐, College of Education for Human Sciences ☐.

  • Living with Parents: Yes☐, No☐

  • Residence: Rural☐, Urban☐

  • Living: Karbala☐, another governorate☐

  • Accommodation type: Own☐, Rented ☐

  • The number of family members: ☐

- **SECOND PART: Students' opinion about problems with online classes:**

| problems with online classes (electronic problems ) | Strongly agree | Agree | Neutral | Disagree | Strongly disagree |
|---|---|---|---|---|---|
| 1 - Do you suffer from frequent internet interruption or difficulty using smart devices for e-study? | | | | | |
| 2 - Is there an improvement in your academic performance and the completion of the assignment in a faster way? | | | | | |
| 3- Is there interaction with professors and colleagues during the online lesson? | | | | | |
| 4 - Stressed by the no. of COVID-19 cases/deaths in Iraq? | | | | | |
| 5- Perception of themselves or family members being at risk of getting sick from the coronavirus? | | | | | |
| 6-Frustration by the isolation and quarantine measures taken by the government | | | | | |
| 7- Changes in household income following the COVID-19 outbreak | | | | | |
| 8- Presence of change in family behavior following the outbreak of COVID-19 | | | | | |
| 9- Is there a drop in the level of study | | | | | |

- **Third part:** Perceived stress scale in knowing the level of stress observed in distance learning among college students during the corona pandemic, i*n the last month*

| | never | almost never | sometimes | fairly often | ery often |
|---|---|---|---|---|---|
| how often have you been upset becauseofsomething that happened unexpectedly? | | | | | |
| how often have you felt that you were unable to control the important things in your life? | | | | | |
| how often have you felt nervous and stressed? | | | | | |
| how often have you felt confident about your ability to handle your personal problems? | | | | | |
| how often have you felt that things were going your way? | | | | | |
| how often have you found that you could not cope with all the things that you had to do? | | | | | |
| how often have you been able to control irritations in your life? | | | | | |
| how often have you felt that you were on top of things? | | | | | |
| how often have you been angered because of things that happened that were outside of your control? | | | | | |
| how often have you felt difficulties were piling up so high that you could not overcome them? | | | | | |

الجزء الأول :

البيانات الشخصية :

العمر

الجنس / ذكر   انثى

الحالة الزوجية / متزوج     غير متزوج

الحالة الاقتصادية / ضعيف   متوسط   جيد

المرحلة الدراسية /

الكلية /

المعيشة مع كال الوالدين / نعم     لا

السكن / مدينه   ريف

محل السكن / كربلاء     محافظه اخرى

نوع السكن / ملك     ايجار

عدد افراد العائلة /

....................................................

الجزء الثاني :

& المعلومات المتعلقة ب استخدام الأجهزة الذكية وشبكه الانترنت والعراقيل المصاحبة للطلاب اثناء التعلم الإلكتروني بعد انتشار جائحه كورونا :

1 - هل تعاني من تكرار انقطاع الانترنت اثناء تلقي المحاضرة وصعوبة استخدام الأجهزة الذكية للدراسة الإلكترونية

موافق بشده     موافق     محايد   غير موافق     غير موافق بشده

2 – هل يوجد تحسن في ادائك الدراسي واكمال الواجب بطريقه أسرع من النظام التقليدي

3- هل يوجد تفاعل مع الأساتذة والزملاء خلال الدرس الإلكتروني

4 – هل سماعك لعدد حالات الوفاة نتيجة كوفيد 19 في العراق يسبب لك توتر عصبي

5- هل يسبب لك توتر عصبي إذا تصورت انت او أحد افراد اسرتك معرضون لخطر الإصابة بفايروس كورونا

6- هل يسبب لك توتر عصبي من إجراءات العزل والحجر الصحي التي اتخذتها الحكومة

7- هل يسبب لك توتر عصبي بسبب تغير في الدخل الاسري بعد تفشي جائحه كورونا

8- هل يسبب لك توتر عصبي بسبب تغير في سلوك الأسرة وتغيير في نمط الحياة مثلا وجود مريض في العائلة

9- هل يوجد انخفاض في المستوى العلمي لفهم المادة

••••••••••••••••••••••••••••••••••••••••••••••••••••••••••

الجزء الثالث :

& مقياس الاجهاد المدرك في معرفه مستوى الاجهاد الملحوظ في التعلم عن بعد لدى طلاب الكليات اثناء جائحه كورونا :

1 ـ هل شعرت بالضيق بسبب حدوث شي غير متوقع مثلا انقطاع التيار الكهربائي في اثناء تأدية الامتحان الإلكتروني

موافق بشده      موافق      محايد      غير موافق      غير موافق بشده

2 ـ هل شعرت إنك غير قادر للسيطرة ع الأشياء المهمة في حياتك وتأدية

واجباتك مثلا زيارة غير متوقعه من الضيوف

3- هل شعرت ب القلق او الانزعاج مثلا بسبب ضعف شبكه الانترنت اثناء تحميل الأسئلة

4- هل شعرت بالثقة بشأن قدرتك في التعامل مع مشاكلك الشخصية مثلا الصعوبة في استخدام الأجهزة والبرامج الإلكترونية

5 — كم مره شعرت ان الأمور تسير في طريقك

6 — كم مره وجدت نفسك لا تستطيع التعامل مع كل الأشياء التي كان عليك القيام بها

7- كم مره تمكنت من التحكم في الانزعاج في حياتك

8 — كم مره شعرت إنك على راس هذه الأمور

9 — هل شعرت بالغضب بسبب أشياء حدثت خارج نطاق سيطرتك  مثلا وجود ضوضاء في المنزل بسبب الأطفال

10 — كم شعرت فيها بالصعوبات التي تتراكم بشكل كبير بحيث لا يمكنك التغلب عليها

**الخلاصة :**

**الخلفيه:** جائحه كورونا كانت واحده من اكبر أزمات الصحة العامة في جميع انحاء العالم في الآونة الأخيرة وأصبحت قضيه الصحه العالمية  غيّرت جائحة كوفيد-19الطريقة التعلم في التعليم العالي وأجبرهم على التحول إلى بيئة التعلم عبر الإنترنت .

**الطرق والمواد:** تم إجراء دراسة وصفية مقطعية في مدينة كربلاء ، حيث تم اخذ 500 مشارك تتراوح أعمارهم بين 18 سنة وما فوق ، وتم أخذ العينات بشكل عشوائي  من خمس كليات في جامعة كربلاء ، وقد تم إجراء المسح من أول مارس 2022 حتى النهاية أبريل 2022  باستخدام استبيان منظم ذاتيًا مجهول الهوية , تم اخذ الموافقة الشفوية ,وتم ابلاغ المشاركين بان البيانات مجهولة ,  تم اختيار الاستبيان من بعض المصادر والبحوث مع اجراء بعض التعديلات وتم ادخال البيانات وتحليلها من خلال إجراء التحليل الإحصائي باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية الإصدار 22 ، وتعتبر القيمة الاحتمالية p التي تقل عن 0.05  ذات دلاله إحصائية .

**النتائج :** كان متوسط عمر المشاركين ( 2±21.62) سنة. وأظهرت النتائج أن حوالي (64.6٪) من الطلاب لديهم مستويات عالية من التوتر، في حين أن حوالي (34٪) لديهم مستويات معتدلة. كما أن حوالي (1.4٪) لديهم مستوى منخفض من التوتر اثناء التعلم الإلكتروني خلال جائحه كورونا، هناك ارتباط  بين مستوى الإجهاد والكلية، (24.1٪) بين مستويات الإجهاد المرتفعة لدى المرشحين لكلية الهندسة القسم المدني و (16.4٪) من المستويات الأقل توتراً لدى المرشحين لكلية التربية والرياضة البدنية، بالإضافة الى ذلك فقد ارتبطت المشاكل الإلكترونية ارتباطا وثيقا مع فئة الغير متزوجين، ذوي الدخل المحدود،  وطلاب المرحلة الثانية، وأخيرا كليه التربية البدنية والعلوم الرياضية أكثر من بقية الكليات .

**الاستنتاج:** أكثر من ثلي الطلاب لديهم مستوى عالٍ من التوتر الملحوظ، وأكثر من ربعهم  لديهم مستوى معتدل من التوتر بين طلاب جامعة كربلاء بعد تفشي مرض كوفيد -19 .

جمهورية العراق

وزاره التعليم العالي والبحث العلمي

جامعة كربلاء

فرع طب الاسرة والمجتمع

قياس نسبة الإجهاد الملحوظ لدى طلاب جامعه كربلاء اثناء الدراسة الإلكترونية خلال جائحة كوفيد-19

رسالة الدبلوم العالي

الى مجلس كليه الطب / فرع طب الأسرة والمجتمع / جامعه كربلاء

كجزء من متطلبات نيل درجه الدبلوم العالي في طب الاسرة

من قبل

زهراء رحيم عويز

بكالوريوس طب وجراحه عامة

اشراف

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<tr><td>الأستاذ الدكتور عامر فاضل الحيدري</td><td>الأستاذ المساعد الدكتور بشير عقيل العلي</td></tr>
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