

Stress, Telework and Covid 19 in College Teachers

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Abstract

COVID-19 has undoubtedly suspended daily normality. Stress has been a concern since the COVID-19 outbreak. This online survey is descriptive-correlational administered through the institutional academic management system - SICOA of the National University of Chimborazo in April 2021, the test of the Mexican Institute of Social Security (IMSS) with a likers scale was used to evaluate the stress perceived by effects of the COVID-19 pandemic, teleworking in university teachers, the SPSS V.24 was used to analyze the test questions and establish the stress levels present in the teachers. The results analyzed aspects such as: decreased appetite and sexual interest, the inability to fall asleep, gastrointestinal discomfort, headaches and body aches, drowning, fatigue, among other aspects. The stress levels found is 3.9% in absence, 32.4 % in alarm phase, 31.9% mild stress, 22.8% mild, 7.3% high and 1.7% severe. This study highlights those preventive measures should be taken to reduce stress levels in university teachers due to the effects of COVID-19 and teleworking. The research could be used as the basis for future research to assess the impact of COVID-19 stress on other types of professionals.

Keywords: University teachers, Telework, Stress, Covid - 19.

1. Introduction

The present research on stress, Telework and Covid 19 was developed in the teachers at the National University of Chimborazo to determine the stress levels presented by these due to the presence of the pandemic caused by the SARS virus - CoV-2, in this sector, as well how the effect of confinement has affected mental alterations that causes damage to the health of the university tele-educator.

COVID - 19 in Ecuador and the world has caused substantial changes in all aspects: political, socioeconomic, health among others in the population, the isolation that has caused the presence of the virus has contributed to changes in lifestyles and work , being the university teacher one of those affected by telework, the virtualization of education, in which the teacher has to look for methodologies and tools that allow reaching students with significant knowledge and learning results that favor their professional training. It has been

contributed that due to the effects of the SARS - CoV - 2 virus, the mental load, physical effort generates stress problems that can be faced in different ways by teachers.

The coronavirus was detected in December 2019 in the city of Wuhan (China), causing a terrible disease that has spread throughout the world as a respiratory disease with severity from asymptomatic to severe and even fatal. The World Health Organization (WHO) classified it as a global pandemic on March 11, 2020 (Perrone & Bevacqua, 2020). The pandemic has brought a health crisis that has affected the whole world with hundreds of thousands of people infected and tens of thousands of deaths in a short time by countries with collapsed hospital systems, without drugs, exhausted health professionals and in the worst cases. Hospital care conditions in which corruption has prevailed at the highest levels in the world and above all its mismanagement. (Gallardo, 2020).

The arrival in Ecuador of SARS - CoV - 2, the government decided to implement the Teleworking modality in many public and private work centers, the education sector is not the exception at all levels, in the case of study the University saw it as an option to maintain the teaching-learning process for professional training that can join the productive sector and emerge from the economic crisis in which the country is immersed.

Working at home on digital display screens (PVDs) requires postural analysis to determine musculoskeletal discomfort. To avoid mental and physical stress, an ergonomic design of the workstation (ergonomic table and chair), organization of work time, avoiding disturbances and interruptions) should be adapted to the work environment at home to avoid occupational ailments related to work. (Mojtahedzadeh et al., 20219).

Teleworking in teachers leads to possible risk factors and impacts on health, this type of work is an occupational risk due to a poor ergonomic position and non-ergonomic jobs not adapted to the user, causing musculoskeletal and psychosocial problems generating discomfort. (González et al., 2019).

Teleworking seeks to alienate the teacher in this case from the pandemic, it produces positive and negative effects by being part of this work modality and which can affect mental and physical health, so it is necessary to adapt telework places to generate comfort, safe and healthy environments. (Morilla et al., 2021).

Stress, according to the Ministry of Health (2020), establishes as a process of adaptation to the environment. By carrying out a work activity for long periods of time and dedicating a greater effort to solve problems due to the effect of the Covid 19 pandemic, it generates stressful situations with negative emotions in which the body begins to react physically and mentally that has negative consequences for people's health. People subjected to stress lead to show high levels of anxiety, depression, behavior and behavior changes that affect their family and social environment, with a high energy drain due to excessive mental and physical load in work activity that can cause diseases professionals who cause lawsuits and compensation to the company.

The causes of stress are due to internal or external factors with different stressful categories such as the work environment, perception of threat, alteration of physiological functions, confinement, job dissatisfaction, pressure and excessive supervision, frustration, not achieving goals, family situations and their close environment that generates problems that get complicated without adequate coping. Stressors in teachers with telework and confinement in the presence of the SARS - CoV - 2 virus.

Stress acts as a driver to achieve goals; but diester is more frequent and causes physical, psychological, cognitive and behavioral problems (Ortega, 2011). Confinement, teleworking and the pandemic affect the physical and mental health of teachers in which high stress levels have accumulated since the beginning of the same, causing an adaptation to the new situation (Besser et al., 2020). Studies before the pandemic show that teleworking using Information and Communication Technologies (ICT) generates feelings of anxiety, mental fatigue, depression, a decrease in the organizational climate of the company that generates problems of physical and mental discomfort. (Cuervo et al, 2018).

The objective of this research is to determine the stress level of the teachers at the National University of Chimborazo who are teleworking due to the effects of the confinement caused by the Covid 19 pandemic.

2. Method

The present investigation is exploratory-descriptive of a transversal type. For the collection of the data, it was collected through the SICOA Computer System of the National University of Chimborazo to all the professors at the University with a contract and appointment. The database was programmed in SPSS V.24, an analysis of the items of the stress test of the Mexican Institute of Social Security (IMSS) was carried out question by question to establish the stress levels of the surveyed subjects. The questionnaire is anonymous, and it was kept confidential.

The IMSS stress test scale is made up of 12 items with a Likert scale. It is categorized into different levels of stress, the same one that is presented in the following table:

Table No. 1 Stress levels of the IMSS Test

STRESS LEVELS	INTERPRETATION
Stress-free (12 points)	Absence of symptoms of stress. It has a good coping strategy.
Stress-free (24 points)	
Mild Stress (36 points)	In alarm phase, diagnose stressors to intervene.
Medium Stress (48 points)	Caution for the stage in which it is, in the phase of rupture and generation of work and family problems. Seek support.
High Stress (60 points)	In a phase of exhaustion with physical and mental exhaustion. Problems in the health of the worker.
Severe stress (72 points)	Seek specialized support to solve the problem

The response options for the lickers scale were: 1 never; 2 almost never; 3 few times; 4 sometimes, 5 relatively frequent and 6 very frequent, it was characterized according to the test points and the performance levels were determined.

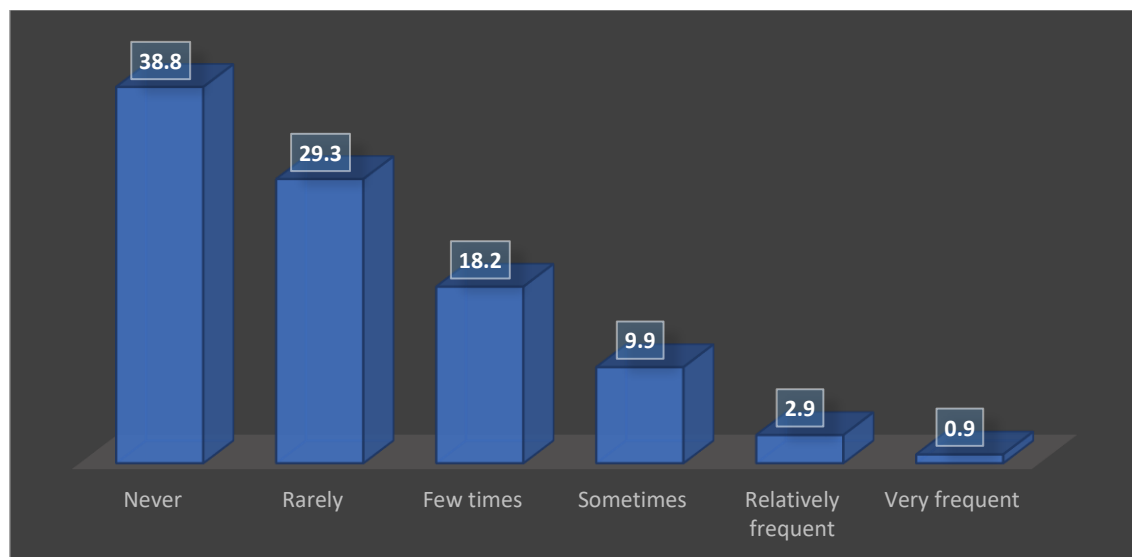
The reliability of the IMSS stress test scale is done through a pilot test in which the Cronbach's alpha coefficient (α), of the entire test being $\alpha = 0.931$, the test being valid, there is a close, positive relationship and great that the factors of the applied questionnaire had between them.

In the SPSS V24, the data was collected to establish the descriptive analysis to study the frequencies of the stress levels and compared with the values established in the IMSS Table of the University teachers.

3. Results And Discussion

The results of the IMSS test applied to 587 University teachers are presented question by question to establish a global result of the stress levels present.

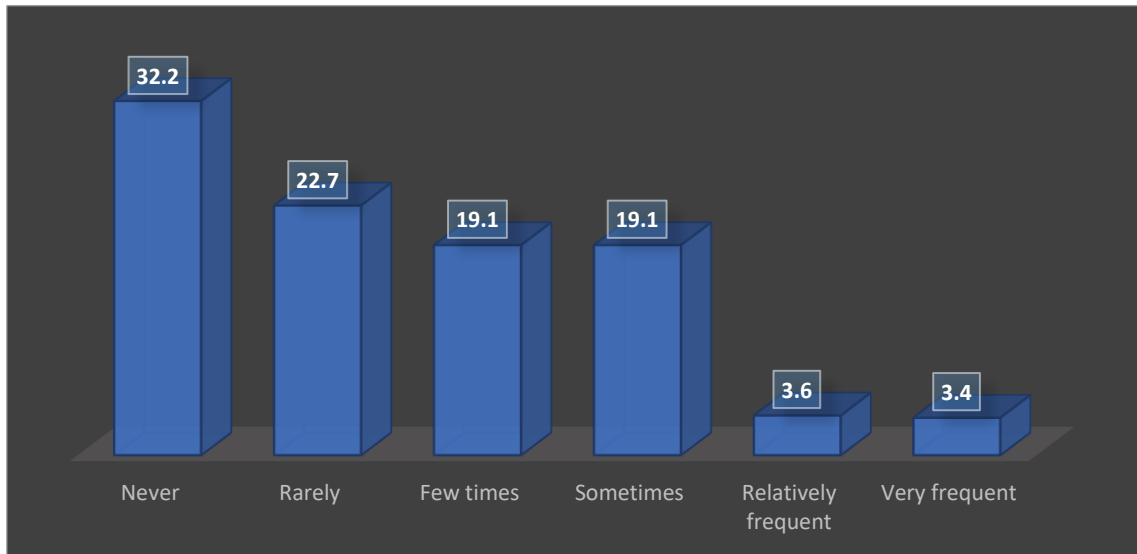
Graph No. 1. Decreased appetite.



Source: The author.

Graph No. 1 referring to the decrease in appetite in university teachers presents a percentage higher than 75% who have experienced few times to never, which means that, due to the excessive mental load, a lot of work presents nutritional deficiencies or bad habits in their eating lifestyle and often even forgetting to eat properly, which can have consequences on the health of the teacher.

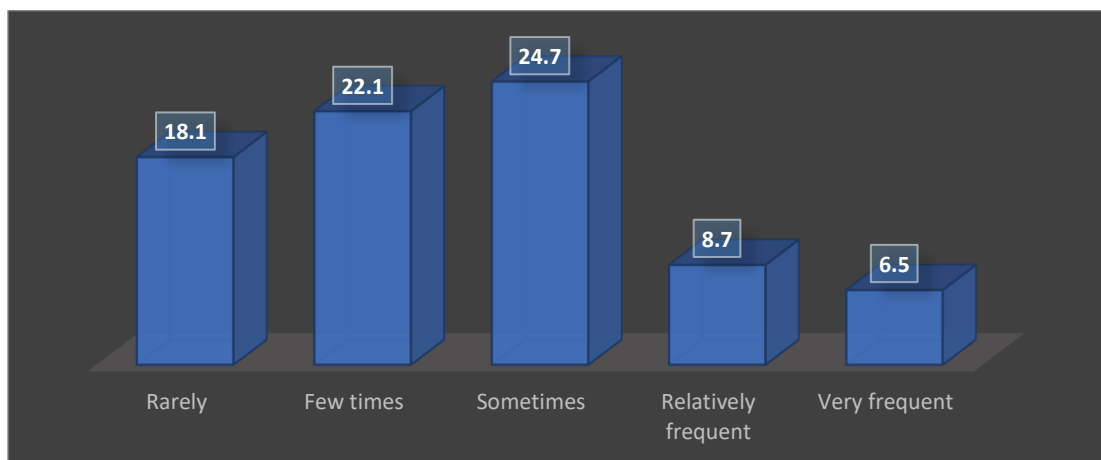
Graph No. 2. Decrease of sexual interest.



Source: The author.

Graph No. 2 referring to the decrease in sexual interest in university teachers presents a percentage higher than 70% that they have experienced few times to never, which means that due to internal and external stressors, sexual interest does not decrease t when there are cases that if there is a decrease in it, the institutional medical department is required to undertake talks about stress and a healthy sexual life.

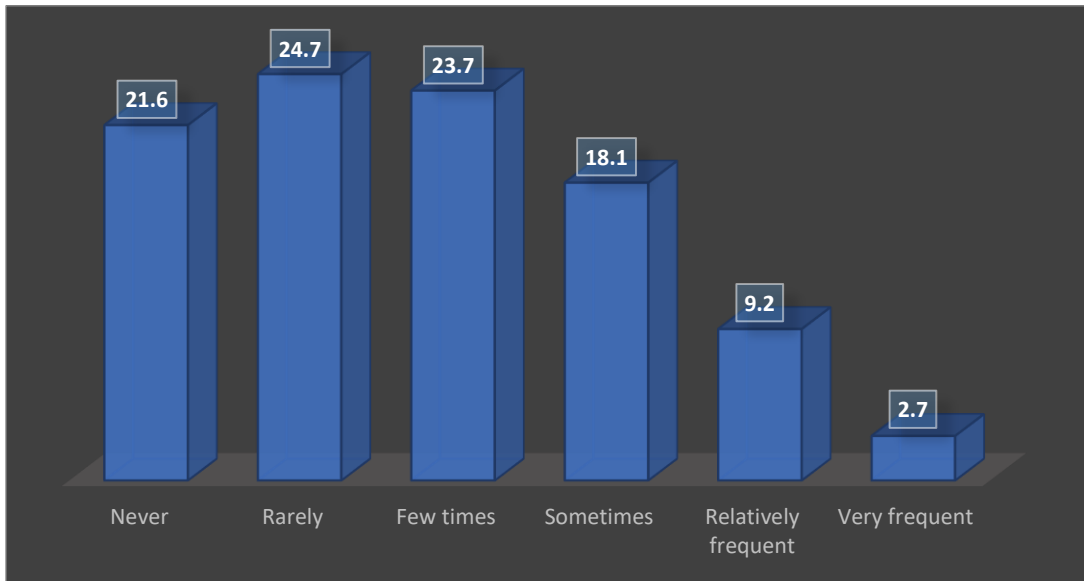
Graph No. 3. Impossibility of falling asleep.



Source: The author.

Graph No. 3 referring to the impossibility of falling asleep in university teachers presents a percentage of less than 15% who have experienced this event from relatively to very frequent, so it is necessary to define the telework day, dose the pampering and regulate your mental load through sports practice, active breaks that can regulate the conciliation of sleep and avoid possible consumption of drugs for the effect.

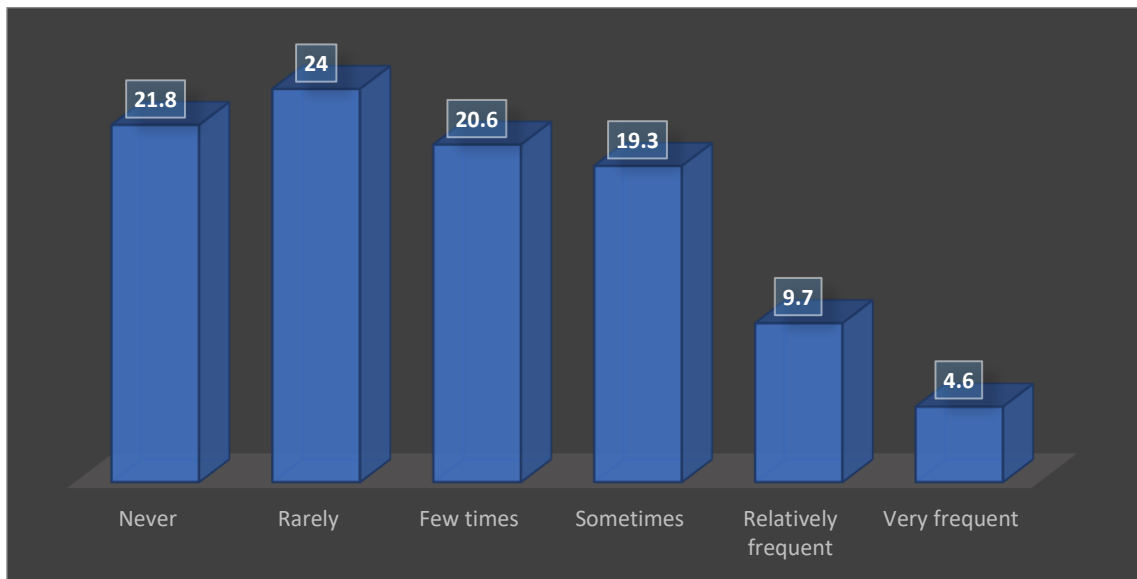
Graph No. 4. Indigestion or gastrointestinal discomfort



Source: The author.

Graph No. 4 referring to ingestion or gastrointestinal discomfort in university teachers presents a percentage greater than 50% who have experienced this discomfort from few times to very frequent, being necessary to consult and schedule a medical appointment to be complemented with medical examinations to establish the root causes of the problem that the teacher has and attribute if it is due to work stress.

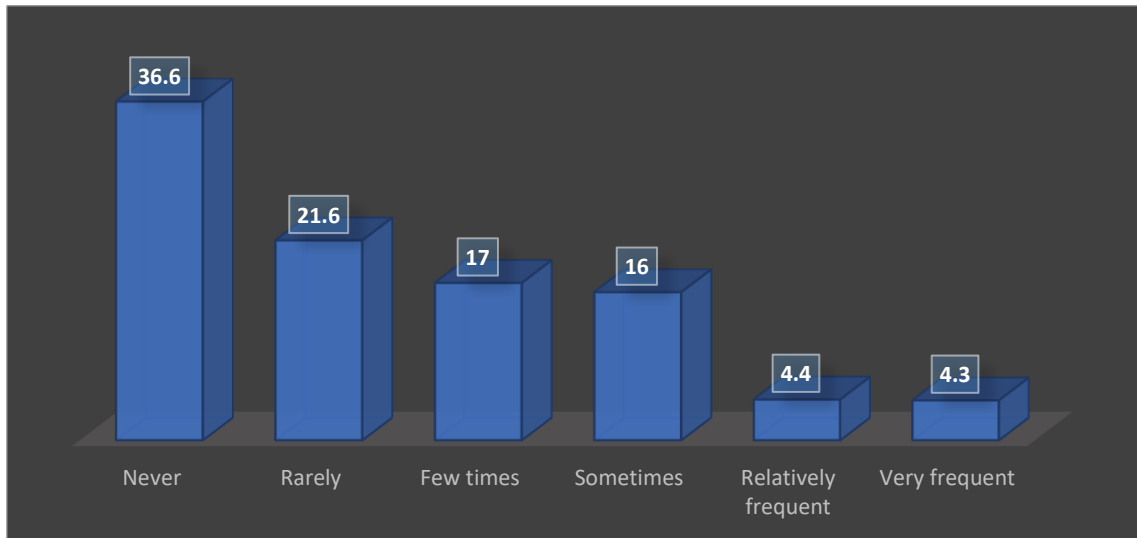
Graph No. 5. Migraines and headaches



Source: The author.

Graph No. 5 referring to migraines and headaches in university teachers shows a percentage higher than 50% who suffer from headaches, which range from infrequent to very frequent, so a medical check-up is necessary to control it. that at no time can end in migraines or headaches that would harm the health of the teacher, so alternative therapies and occupational gymnastics are also recommended to lower the mental load.

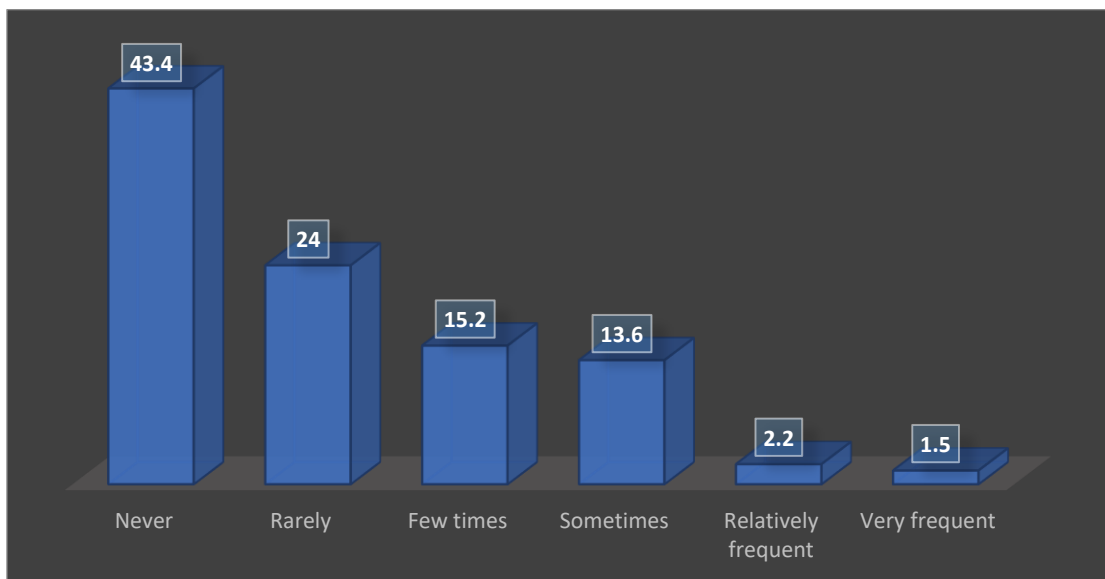
Graph No. 6. Stitches or painful sensations in different parts of the body



Source: The author.

Graph No. 6 referring to punctures or painful sensations in different parts of the body in university teachers shows a percentage higher than 40% who have experienced pain in different parts of the body, it cannot be directly related or attributed that it is due to the stress should be performed medical check-ups for analysis and establish a real diagnosis.

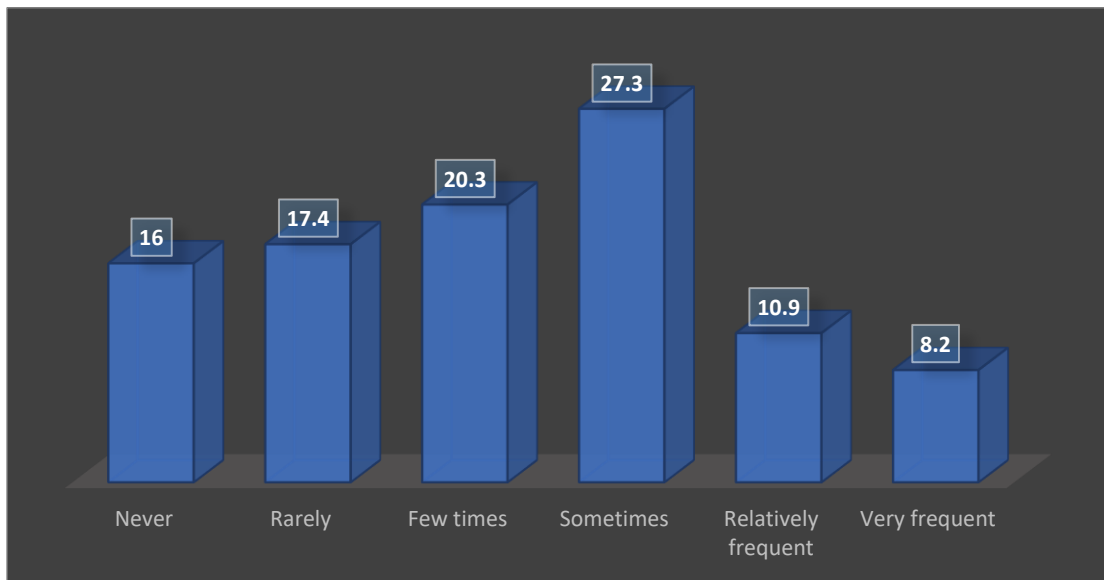
Graph No. 7. Shortness of breath or feeling of suffocation.



Source: The author.

Graph No. 7 referring to shortness of breath or a feeling of suffocation in university teachers presents a high percentage of 40% who have never experienced this event, however there are cases that must be analyzed and studied by the occupational physician and specialist to establish the causes and determine its relationship with stress to dose the work and implement preventive measures.

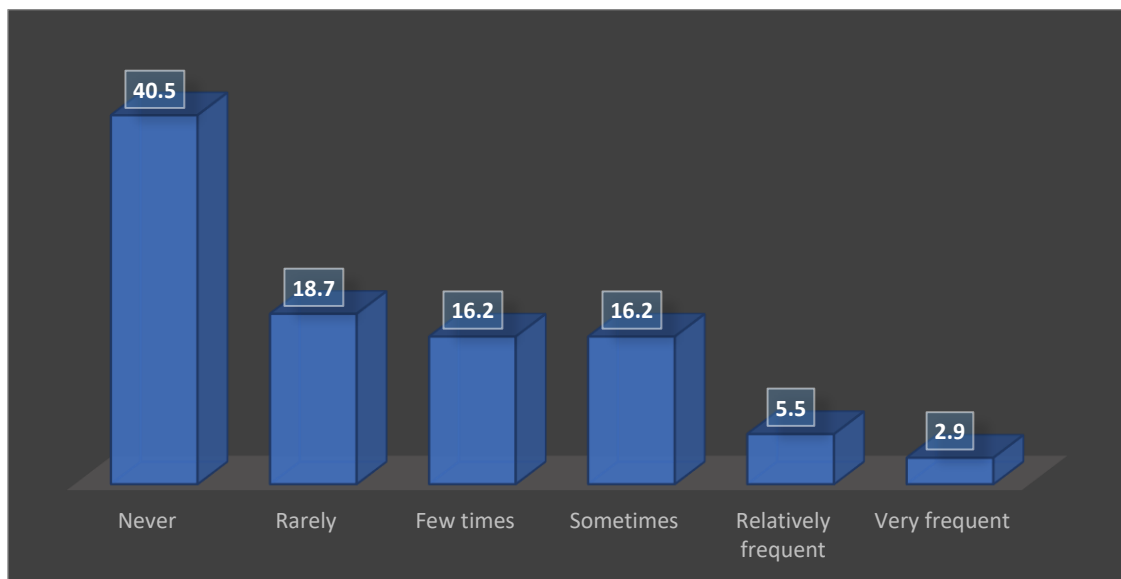
Graph No. 8. Feeling of extreme tiredness or exhaustion



Source: The author.

Graph No. 8 referring to the feeling of extreme fatigue or exhaustion in university teachers presents a high percentage of more than 50% who have experienced fatigue from few times to very frequently, this can be attributed to teleworking, insecurity in the face of possible contagions by Covid 19 and fundamentally to the fact that there is more work, and the working hours are extended than normal.

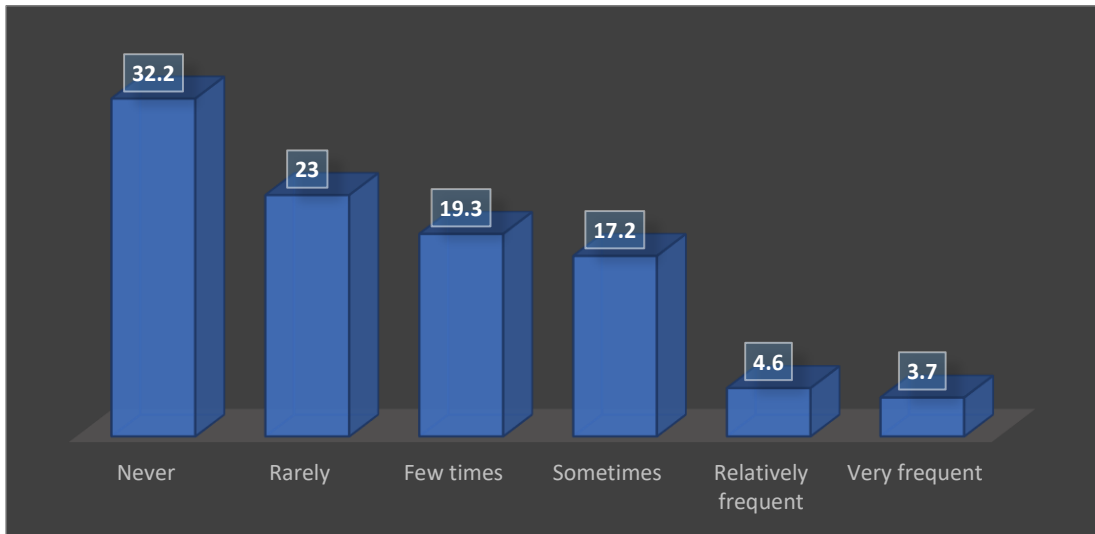
Graph No. 9. Muscle Tremors



Source: The author.

Graph No. 9 referring to the sensation of muscle tremors in university teachers shows a percentage of more than 40% who do not have muscle tremors, however, most have shaken from almost never to very frequent, so it is necessary to carry out ergonomic evaluations to determine if it may be due to non-ergonomic positions or there is not a good blood circulation in the body due to being in a sitting position or the teacher's sedentary lifestyle.

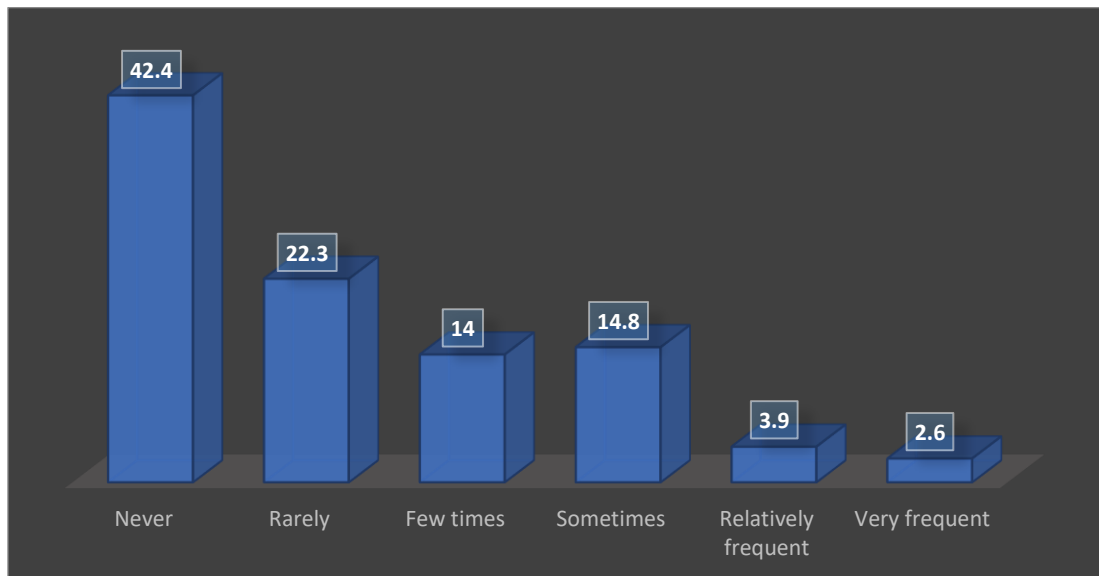
Graph No. 10. Tendency to eat, drink, smoke more than usual



Source: The author.

Graph No. 10 referring to the feeling of a tendency to eat, drink, smoke more than usual in university teachers presents a percentage of more than 40% who have eating, drinking and smoking habits with a different lifestyle in which they are influenced by teleworking and confinement, it is necessary to organize the teacher's job and complement it with a healthy diet, exercise with a better organization of work.

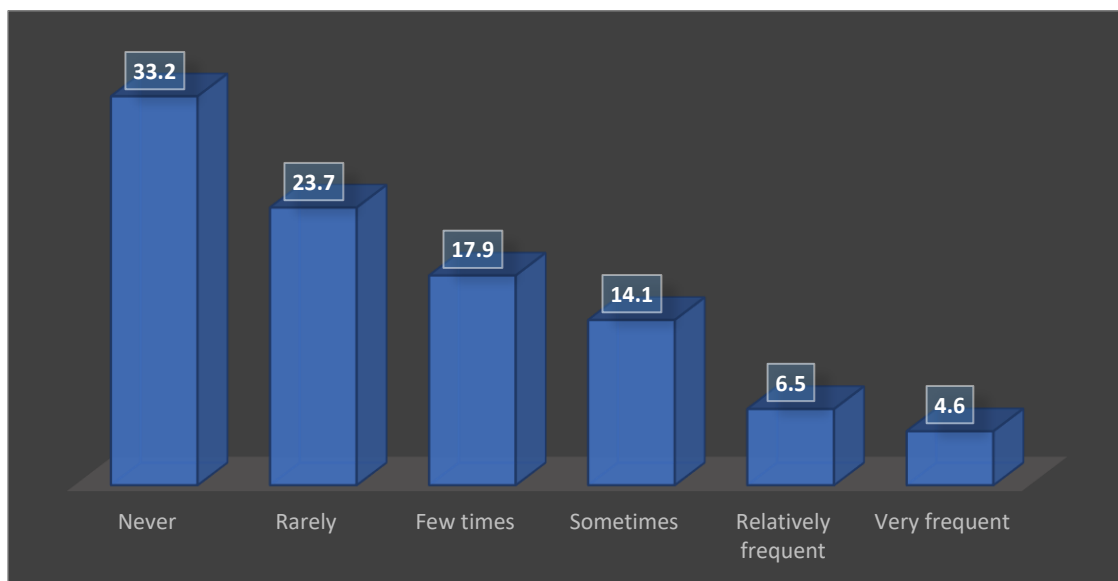
Graph No. 11. Tendency to sweat or have palpitations.



Source: The author.

Graph No. 11 referring to the tendencies to sweat or palpitations in university teachers presents a percentage of more than 40% who never have a sensation of sweating or palpitations, however, most of them have a tendency to this phenomenon that may be due to their own factors of the biological characteristic of the human being but others may be due to nerves at the time of interacting in the classroom or tachycardia processes typical of age, consumption of alcohol, tobacco and other substances, lack of exercise.

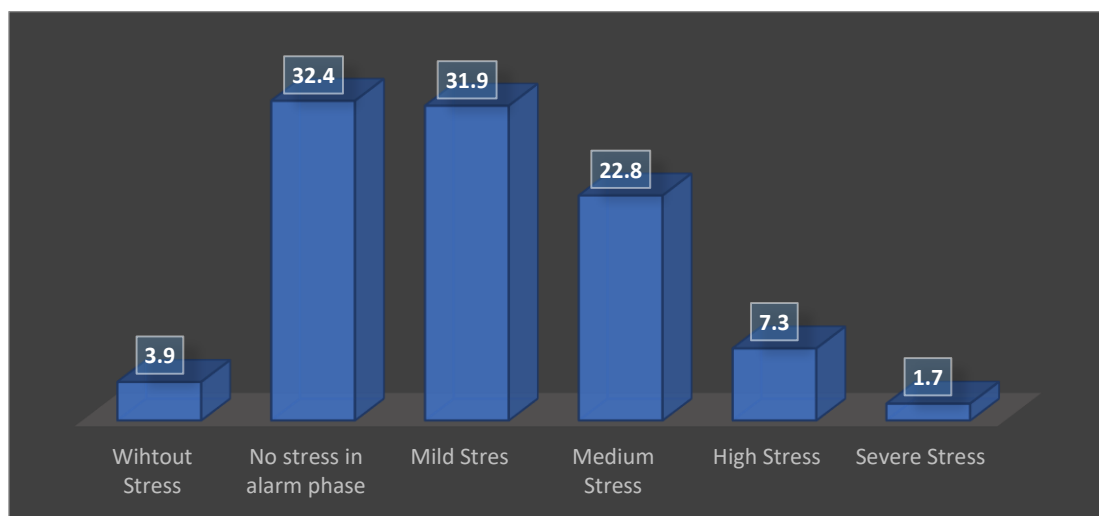
Graph No. 12. Strong trends for not getting up in the morning.



Source: The author.

Graph No. 12 referring to the strong trends for not getting up in the morning in university teachers presents a low percentage of 33.2% never has a tendency not to get up early, however mostly due to the fatigue of the previous day, the burden mentally has difficulty getting up, so it is necessary to dose the workday at eight hours and no more.

Graph No. 13. Stress levels of the IMSS test



Source: The author.

Graph No. 13 referring to the stress levels of the IMSS test in university teachers shows high percentages that exceed 50% ranging from mild stress to severe stress in which it is necessary to implement training on severity in physical condition and in the most critical cases, specialized help should be implemented in view of the fact that it is not possible to establish the way in which the teacher faces the problem of Covid 19 and teleworking.

Stressful events threaten physical well-being, personal self-esteem and towards others, loss of self-esteem, lack of fulfillment of business objectives and in addition to those detected in this research, it means that work stress not only has individual repercussions, but it also affects the organization with an increase in absenteeism, low productivity and job abandonment rates (Álvarez, 2012, p.121-123).

4. Conclusions

This research analyzes the effects of stress, telework and Covid 19 on university teachers in a context of preventive social isolation. In this article, teachers at the National University of Chimborazo have been surveyed in their entirety with appointment and contract. The study analysis aspect is the change from face-to-face to virtual modality with the use of Tics and if the change of work modality generates signs of stress. The study was carried out through an online survey in the SICOA computer system of the university in which the university teacher was evaluated to determine the presence or absence of stress, the teacher despite having the necessary elements for the process of virtual learning teaching that has been complemented with training in virtual tools 2.0 and virtual classrooms presents symptoms of stress.

One of the aspects that was detected is the difficulty in which the university teacher has changed from a face-to-face to virtual modality and despite being trained in the proper management of technologies and educational tools, it requires educational planning to complement with the technological training that does not Covid 19 is sufficient for virtuality, teleworking has hindered the development of a sustainable academic quality for the theoretical and practical development of the student with a methodological and pedagogical training.

The University of Chimborazo has seen the need and has trained in the different teacher training activities to adapt the change from face-to-face to virtual through tools such as zoom, Teams and other elearning platforms that facilitate the process and do not overload the teacher with an increase of their workload with a greater time dedication and other work and emotional burdens of a new work reality that have generated a perception of stress levels detected in the present study.

The increase in musculoskeletal pain caused by long working hours, the absence of ergonomic furniture makes the university teacher tense with tasks of caring for the home and people in their care and especially the presence of Covid 19 in the world makes that the fear of contagion increases the risk and stress factors in the teacher. Many of the teachers surveyed show a decrease in their personal dedication that has a negative impact on stress.

The experiences learned in the pandemic make the university turn all its efforts to accompany the educational process with emotional support on the management of the pandemic, stress, telework to reduce physical and mental conditions that can cause a professional illness or lead to different training to deal with negative consequences for university teachers, so it is necessary to establish psychological support programs for teachers.

The results obtained at the university through the applied test make this detected reality be applied in other institutions to have a data that allows to detect early stress levels and propose initiatives of actions aimed at reducing the stressors presented in this research that generates conditions of comfort and health in the university professor

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