

**Uso de la tecnología y Síndrome de Burnout: un estudio del personal del área contable sobre las consecuencias del uso excesivo de herramientas tecnológicas en el confinamiento durante la pandemia de Covid 19**

**Use of technology and Burnout Syndrome: a study of accounting area personnel on the consequences of excessive use of technological tools in confinement during the Covid 19 pandemic**

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## RESUMEN

El síndrome de Burnout es una patología muy común en la sociedad actual, caracterizada por la presencia en el individuo de apatía, agotamiento, desatención de las propias necesidades, a nivel fisiológico, hiperactivación del sistema simpático, acompañado de retraimiento de la vida social y estados de ánimo depresivos, sin embargo, la clínica es muy variada y depende de cada paciente. La pandemia mundial debida al COVID-19 trajo consigo graves repercusiones en la salud mental de todos. La sociedad mundial se adaptó a las necesidades actuales de la época, aumentando considerablemente el uso de recursos tecnológicos. Se realizó un estudio en personal del área contable, exponiendo las consecuencias de la virtualidad en la Sociedad Ecuatoriana.

**Palabras claves:** burnout, pandemia, salud mental

## ABSTRACT

Burnout syndrome is a very common pathology in current society, characterized by the presence in the individual of apathy, exhaustion, neglect of one's own needs, at a physiological level, hyperactivation of the sympathetic system, accompanied by withdrawal from social life and depressive moods, however, the clinic is very varied and depends on each patient. The global pandemic due to COVID-19 brought with it serious repercussions on everyone's mental health. World society adapted to the present needs at that time, increasing the use of technological resources considerably. A study was carried out on accounting area personnel, exposing the consequences of virtuality in Ecuadorian Society are exposed.

**Keywords:** burnout, pandemic, mental health.

## Introduction

Known in English as burnout or workwear, this syndrome is a worldwide problem; however, it is only in the year 2000 that the WHO declared Burnout Syndrome as an occupational risk factor, taking into consideration its negative repercussion on the work performance of people and the impact on the personal and daily life of the subjects, putting at risk not only the physical health, but also their mental health; Following this statement, this entity includes Burnout within the eleventh edition of the so-called “International Statistical Classification of Diseases and Related Health Problems” with the identification code QD85, naming it as occupational burnout syndrome [1]; as well as a sign of its serious impact worldwide, the WHO, through its research, has stated that 6 out of 10 workers in the United States suffer from it. In Mexico, this number has increased to 8 out of 10 workers.

Thus, as an example of this context, 47 million people in the United States lost their jobs last year due to exhaustion, becoming an unprecedented number. Similarly, in recent years, tens of thousands of Chinese workers have quit their jobs due to chronically high levels of work stress, many of them choosing to move to cheaper cities where they could live with low-demand jobs and devote more time to themselves. On the other hand, around 3 million people die each year from stress-related illnesses linked to the work area. In addition to these enormous human costs, there are huge economic losses around the world, a problem for which the pandemic has had a major impact.

Likewise, in a study carried out in 2018 in Ecuador, it was found that the predominance of Burnout syndrome in 77 high school and university education teachers manifested an incidence of 2.5%. [1]. In the same way, according to the data collected by Quiroz et al. (2021) in their research entitled “Prevalence of Burnout syndrome in health professionals in the face of the COVID-19 pandemic”, it was found that in Ecuador and Colombia during the pandemic the percentage of professionals affected by Burnout

Syndrome and its symptoms was 95% and 70% respectively [2].

## Generalities

### Ecuadorian Labor Law Regulations

In Ecuador, in accordance with the Law of the Accountant, reformed in 2019 as a comprehensive reform bill that allowed the modification of several articles of the Supreme Decree of 1594, which was registered in the Official Gazette 157 of 1966, the same that has been perceiving subtle modifications over the years due to the repeal of various articles deemed unconstitutional, responding to the fact that they manifested as common practices of a nature alien to the profession. The work of the Ecuadorian accountant covers a list of various responsibilities, generating at the same time a considerable workload which they will have to face with the main objective of fulfilling their professional duties, allowing themselves professional growth, in addition to meet the needs of their clients. within the respective context of the current subject (accounting); Like any Ecuadorian worker, their labor rights are protected by the Ecuadorian State in favor of their integral well-being in accordance with the national policies regulated according to Good Living, a situation that can be evidenced in the Ecuadorian Constitution within Article 331, which highlights the prohibition of any type of discrimination, both direct and indirect, that includes actions of harassment or violence against workers in their work areas, similarly, there is the Andean Instrument for Safety and Health at Work, which, in Article 11, literal B of Chapter III, the obligation to identify and evaluate risks is established initially, as well as periodically, in order to issue preventive actions. [3] [4].

Faced with the aforementioned, it is recognized that the Ecuadorian State, as well as society itself, are under the obligation to guarantee work spaces free of both physical and psychological risks, allowing the integral development of workers in the face of professional and labor frameworks, as well as

personal, empowering the ability to maintain the integrity of the worker and therefore improving their work performance.

### **Burnout Definition**

Burnout was defined by Maslach (1993) [5], who considers it a psychological syndrome of emotional exhaustion, depersonalization and decreased personal fulfillment, which occurs in individuals. In other words, when we say that a professional is “burned out”, it must reflect that the situation (work, family or social) has overwhelmed him or her and exhausted the abilities to adapt. This is the end of constant tension and stress. [5]. Thus, the presentation of burnout is a predictable episode of persistent stress at work, followed by maladaptation to the changes that would be necessary to maintain the individual’s psychological homeostasis. It is a stressful state in which hyperactivation of the sympathetic system occurs without resolution, which eventually exceeds the limiting physiological capacity of the person and manifests itself in exhaustion, depersonalization and a feeling of insatiability. Later, symptoms gradually appear that reflect unresolved stress only.

Gil Monte and Peiró [6] defined it as the subjective experience of feelings, thoughts and attitudes that lead to psychophysiological changes in a person and negative consequences in the workplace, all as a result of chronic stress.

A Some authors [7], determined it as a negative and persistent mental state related to work that occurs in common people and manifests itself as incompetence, discomfort, demotivation and inability to work. We can note that the triaxial model is always implicit in these definitions, which has been seriously criticized for superimposing the typical symptoms of the syndrome with images of depression. [8].

### **Burnout psychopathology**

There are various psychosocial models that seek to determine the sequence of development of Burnout syndrome. The symptomatology

varies greatly among each individual, so there are discrepancies regarding various authors when defining it, taking as priority the symptom that occurs first, the complete sequence of the process, etc. [9].

### **Gil and Peiró [6] perform a grouping of these models into three groups:**

A first group includes the models developed within the framework of the sociocognitive theory of the self, based on the ideas of Albert Bandura, where it is considered that the cognitions of individuals influence what they perceive and do, in turn these cognitions are modified by the effects of his 33 actions and by the accumulation of consequences observed in others; and that the belief or degree of security on the part of a subject in his own abilities will determine the effort that the subject will put into achieving his goals and the ease or difficulty in achieving them, and will also determine certain emotional reactions such as depression or stress that accompanies the action. [6]

Then, in the second group, it includes the models elaborated from the theories of social exchange. These models consider that Burnout syndrome has its etiology mainly in the perceptions of lack of equity or lack of gain that the subjects develop as a result of the social comparison process when interpersonal relationships are established. Helping service professionals establish exchange relationships (e.g., help, appreciation, gratitude, recognition, etc.) with the recipients of their work, with peers, with supervisors, and with the organization, and in these relationships the expectations of fairness or profit on those trades play an important role. When subjects continuously perceive that they contribute more than they receive in exchange for their personal involvement and effort, without being able to adequately resolve this situation, they will develop feelings of burning out for work.. [6].

Finally, the third group considers models elaborated from the organizational theory. These models include role dysfunctions, lack of organizational health, structure, culture and

organizational climate as antecedents of the syndrome. These models are characterized because they emphasize the importance of stressors in the organizational context and the coping strategies used in the experience of burnout. [6]

### **Burnout: Psychosocial problems of the labor area.**

This syndrome is detailed as a psychosocial problem of a labor nature through which physical, mental and emotional exhaustion is revealed due to the excess demand required in professional work, negatively affecting the development and daily performance of the people. This syndrome is stated as a psychological response to chronic work stress, which exhibits negative factors such as physical, emotional, cognitive, and affective deterioration, as well as depersonalization and decreased personal fulfillment of individuals. [9].

Burnout syndrome has been studied in practically all professions. The percentage of people identified with the classic symptoms depends on the type of occupation, the demands of the position and the perception that workers have of personal fulfillment.

It should be noted that, in relation to the above, during the period of confinement due to the COVID-19 pandemic, this syndrome has increased its presence and levels of affectation in professionals as a result of the exhausting workdays, the excessive use of devices such as tables, computers or cell phones, which forced workers in general and with emphasis on accounting personnel to be available at any time of the day, including days off.

### **Burnout, accountants and technology**

Burnout, being a problem of a psychosocial nature, is characterized in turn by manifesting itself globally. According to the World Health Organization [10], Burnout Syndrome is established as an occupational risk factor which has a strong negative impact on the quality of life of people who suffer from it,

considering from the physical to psychological context, putting the lives of individuals at risk. Despite the fact that its definition is neither in the DSM-V nor in the ICD 10, it is mainly described as an inappropriate way of coping with chronic stress, and its main characteristics are emotional exhaustion, depersonalization and reduced personal productivity. Likewise, according Guthrie and Jones [11], the issue of job burnout is a subject of study that has been extensively analyzed in recent years, taking into consideration its impact on the professional performance of individuals and their own daily life, presenting itself as a risk of psychosocial nature.

Professionals in the accounting area, through their work activities, have focused their efforts on practicing the traditional mercantilist activity typical of their profession, focused within the context of costs, finances, and audits, as well as laws guided by accounting procedures; All these tasks are considered within activities that are carried out mainly on electronic devices, taking into account the use of platforms and programs that complement their work. [12].

Based on the aforementioned in this study, we will analyze the impact that the COVID-19 pandemic had on professionals in the accounting area, understanding that work overload, virtual working conditions, excessive use of information technologies and considering the division of working hours has generated the burnout syndrome in the study population.

### **Methodology**

The present research was carried out based on the quantitative methodology, which, according to Neill and Cortez. [13] is defined as an experimental research method commonly used in the area of science, empowering the ability to know the reality of a context, this impartially through the collection and analysis of variables of a measurable nature; therefore, through this technique we are allowed to obtain numerical information for a subsequent numerical analysis and its respective interpretation.

In the same way, the research is of a transversal nature, since it empowers us with the ability to collect information in a fixed and delimited period of time, without the need to resort to information from a previous or subsequent period.

The data collection was carried out by structuring a questionnaire based entirely on the Questionnaire for the Evaluation of Burnout Syndrome by Work - CESQT by the author Gil - Monte, comprised of a total of 20 items, made up of a frequency scale that collect 5 items as response options. (Never= 0, Rarely: A few times a year =1, Sometimes: A few times a month =2, Frequently: A few times a week =3, and Very Frequently: Every day =4)

The type of sample that participated in the research was non-probabilistic for convenience, since it was chosen based on the knowledge of the authors of this research, who were working as accountants during the pandemic period and their work continues currently in force [2].

Thus, 91 professionals from the accounting area participated; It is worth mentioning that demographic data was not considered for the collection, analysis and interpretation of the information obtained.

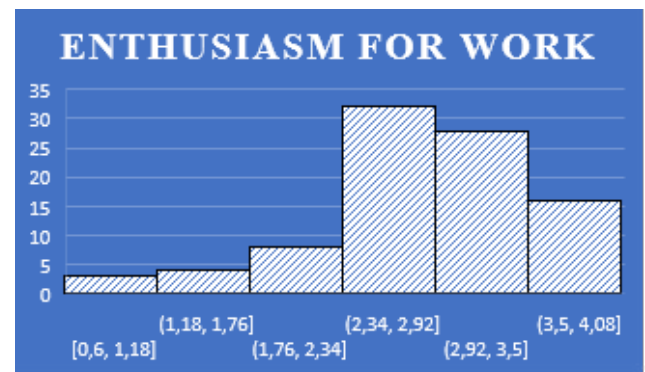
**Results**

For the interpretation of the results of this questionnaire, the indications proposed by Gil - Monte (2015), author of this psychometric tool, who suggests the interpretation based on cut-off points through percentiles, have been followed; For this, the interpretation of results is analyzed under the premise of an interesting classification, according to the levels in which the percentiles obtained are located. The classification is as follows:

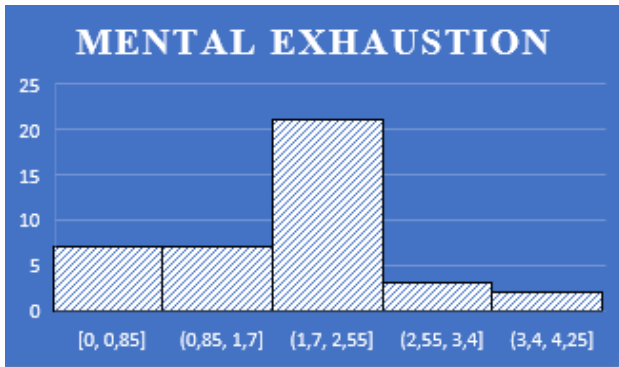
**Tabla 1.**  
*Summary Scales of the Questionnaire for the Evaluation of Burnout Syndrome at Work*

Level	Percentil	IL	IN	DP	C	TOTAL SQT	Percentil
Critical	≥ 90	4.00	1.83 – 4.00	2.75 – 4.00	1.80 – 4.00	1.87 – 4.00	≥ 90
High	67 – 89	3.79 – 4	1.18 – 1.82	2.01 – 2.74	1.20 – 1.79	1.28 – 1.86	67 – 89
Medium	34 – 66	3 – 3.59	0.45 – 1.17	1.00 – 2.00	0.50 – 1.19	0.72 – 1.27	34 – 66
Low	11 – 33	2.01 – 3.60	0.15 – 0.44	0.25 – 0.99	0.00 – 0.45	0.34 – 0.73	11 – 33
Very low	<11	2.01	0.15	0.25	0.00	0.34	<11

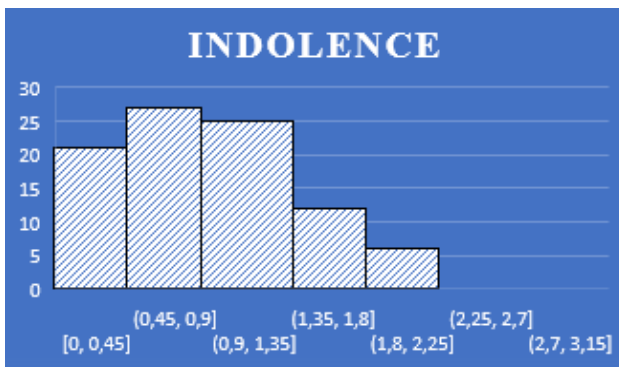
**Based on this information, the following analysis should be mentioned:**



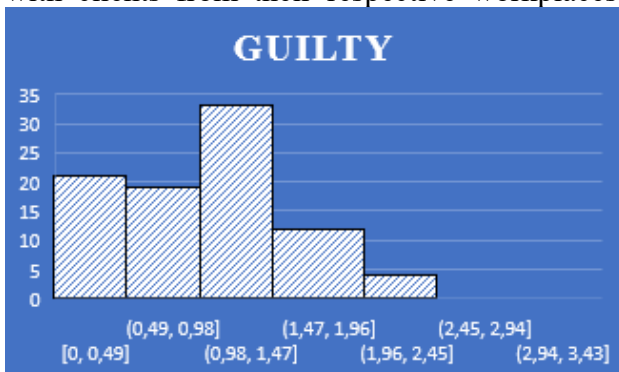
According to the data collected, the score obtained in the “Illusion for work” dimension is 2.81, from which it can be considered that we are in the presence of a low level of Burnout Syndrome at Work, taking into consideration that, in the face of high scores on this scale, there is a low level of burnout syndrome at work, while, in the case of obtaining low scores, the high presence of it is manifested.



Regarding the “Psychic Wear” dimension, it is observed that the scores showed a medium level of this scale, presenting an average value of 1.84; therefore, it is likely that the population participating in the current research shows signs of exhaustion and discomfort when carrying out their professional duties, from which it can be deduced that this situation is possibly causing a negative impact on their work performance.

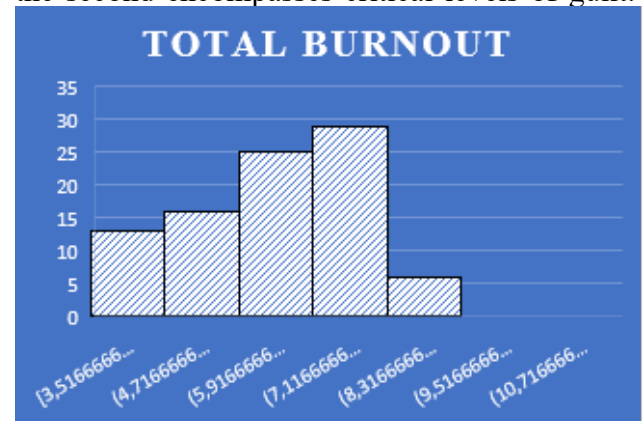


Similarly, regarding the “Indolence” dimension, an average score of 0.93 was reached, an amount that is associated with a low average of burnoutsyndromeatwork, a situation that is related to attitudes of indifference regarding dealings with clients from their respective workplaces.



Regarding the “Guilt” dimension, an average of 1.01 was obtained, belonging to the

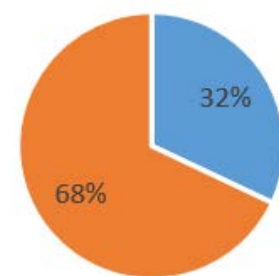
medium level of burnout syndrome at work; Therefore, it can be interpreted that there is a moderately negative personal conception of the workers’ behavior, with reference to the people with whom they interact within their work context. It is worth mentioning that this dimension is not considered for the quantification of the total results of the questionnaire, since, through this, two types of profiles appear, the first being where there are no high or critical levels of guilt, while the second encompasses critical levels of guilt.



Finally, with respect to the total average results of this questionnaire, a score of 1.44 was obtained, thus concluding with the deduction that, indeed, the accounting professionals who participated in this research manifest a high level of Burnout Syndrome at Work, taking into consideration that this score is located in the 66th percentile. It should be noted that the participating population manifests a category 1 profile, that is, with medium-low levels relative to the guilt scale.

### TOTAL BURNOUT

- MIDIMUM
- HIGT



Also, statistically, it is considered that 68.13% (62 people) have high levels of Burnout Syndrome, while the remaining 31.81%

(29 people) have medium levels of Burnout Syndrome at Work; No records were obtained for the rest of the levels.

## CONCLUSIONS

After the analysis of the results, it is concluded that, in effect, the levels of burnout syndrome in accounting professionals are manifested within a high range, based on the parameters established by the questionnaire implemented, in addition, it is important to mention that, despite the high levels of burnout syndrome at work, the participating personnel have not shown negative behavior related to interpersonal relationships within the work context, both with their clients and with their co-workers, a situation that can be evidenced in the lack in terms of a profile No. 2, corresponding to the evaluation criteria of the implemented tool.

In the same way, taking into account the information collected throughout the research process, the excessive use of technologies related to the work context, as well as the division of working hours, has led to the presence of high levels of Burnout Syndrome, taking into account the lack of compliance with the established working hours, which in turn, translates as an increase in the workload and effort, which, it is worth mentioning, is not contemplated within the remuneration parameters.

Based on the above evidenced in the present research, it is important to mention the relevance of continuing with studies to clarify the influence of the excessive use of technological tools within the workplace and its impact on the physical and mental health of Ecuadorian workers, taking into account the context of the COVID-19 pandemic, which has had a strong effect on the development of society in general, widely presenting a great influence on the modification of the reality of work scenarios in Ecuador.

## Bibliographic references

[1] Santaella, L. (2022). Incidencia en el síndrome de burnout y su relación con

el sobrepeso, sedentarismo y presión arterialelevada. *Revista Científica UISRAEL*; 9(3). e-ISSN: 2631 – 2786. <https://revista.uisrael.edu.ec/index.php/rcui/article/view/601/645>

- [2] Quiroz-Ascencio G, Vergara-Orozco MG, Yáñez-Campos M del R, et al. Prevalencia de síndrome de Burnout en profesionales de la salud ante pandemia de COVID-19. *Sal Jal*. 2021;8(Esp):20-32. <https://www.medigraphic.com/pdfs/saljalisco/sj-2021/sje211h.pdf>
- [3] López, C., y Vera, C. (2020). Incidencia Del Síndrome De Burnout En La Calidad De Vida Laboral De Contadores En Firmas Auditoras De Guayaquil. <http://repositorio.ucsg.edu.ec/bitstream/3317/15190/1/T-UCSG-PRE-ECO-CICA-433.pdf>
- [4] Ministerio, de R. L. (2012). Factores y riesgos laborales Psicosociales: Nuevos riesgos laborales emergentes e introducción a la evaluación. <http://www.trabajo.gob.ec/wpcontent/uploads/2012/10/NT-25-Factores-y-Riesgos-Psicosociales.pdf>.
- [5] Álvarez Gallego, E., & Fernández Ríos, L. (1991). El Síndrome de "Burnout" o el desgaste profesional (II): Estudio empírico de los profesionales gallegos del área de Salud Mental. *Revista de la Asociación Española de Neuropsiquiatría*, 11(39), 267-273. <https://www.revistaen.es/index.php/aen/article/view/15232>
- [6] Gil-Monte, P. R. (2003). Burnout syndrome: ¿síndrome de quemarse por el trabajo, desgaste profesional, estrés laboral o enfermedad de Tomás?. *Revista de Psicología del Trabajo y de las Organizaciones*, 19(2), 181-197. <https://www.redalyc.org/pdf/2313/231317661003.pdf>
- [7] Gandi, J. C., Beben, W. W., & Gyarazama, Y. (2011). Nurse's roles and the mediating effects of stress on job performance in low and developing economies. *Psychology*, 2(04),



323. <http://dx.doi.org/10.4236/psych.2011.24051>
- [8] Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015). Burnout–depression overlap: A review. *Clinical psychology review*, 36, 28-41. <https://pubmed.ncbi.nlm.nih.gov/25638755/>
- [9] Tabares-Díaz, Y. A., Martínez-Daza, V. A., & Matabanchoy-Tulcán, S. M. (2020). Síndrome de Burnout en docentes de Latinoamérica: Una revisión sistemática. *Universidad y salud*, 22(3), 265–279. <https://doi.org/10.22267/rus.202203.199>
- [10] Saborío Morales, L., & Hidalgo Murillo, L. F. (2015). Síndrome de Burnout. *Medicina legal de Costa Rica*, 32(1), 119–124. [http://www.scielo.sa.cr/scielo.php?script=sci\\_arttext&pid=S1409-00152015000100014&lng=en&tlng=ess](http://www.scielo.sa.cr/scielo.php?script=sci_arttext&pid=S1409-00152015000100014&lng=en&tlng=ess)
- [11] Castañeda Novoa, Y., Valero Zapata, G. M., & Patiño Jacinto, R. A. (2021). Diagnóstico del síndrome de burnout en los contadores públicos de la región Andina en Colombia. *Revista Facultad de Ciencias Económicas*, 29(1), 127–149. <https://doi.org/10.18359/rfce.5259>
- [12] Loaiza, B., y Narváez, J. (2019). La experiencia de los contables entre el desarrollo profesional y el deterioro de la salud. *Actualidad Contable Faces*, vol. 22, núm. 39, pp. 50-74. <https://www.redalyc.org/journal/257/25760520003/html/>
- [13] Neill, D., y Cortez, L. (2018). *Procesos y fundamentos de la investigación científica*. Ediciones UTMACH. I SBN: 978-9942-24-093-4. <https://anyflip.com/kgwsu/zyde/basic>