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# Risk for Workaholism among Working Physicians of Zagazig University Hospitals: A Massage for Achieving Productive Work and Balanced Life

**Samah S. Sheta*, Merhan A. Hammouda**
Department of Community, Environmental and Occupational Medicine,
Faculty of Medicine, Zagazig University, Zagazig, Egypt
***Corresponding author:** Samah S. Sheta, **Mobile**: (+20)01143500624, **E-mail:** shtasmah@gmail.com

## ABSTRACT

**Background:** Workaholics are characterized by an intense desire to work, even at the expense of other aspects of their lives (such as their health, their personal relationships, and their leisure time). The term work-life imbalance is an occupational stressor based on depleted resources of energy, time and feelings about work or personal life. By time, researchers increasingly agree on making workaholism a subtype of work addiction. Concern that one's job would turn one into a workaholic is common among physicians. Doctors need to take notice of this trend. The objective of our study is to measure prevalence of workaholism and its risk among physicians of Zagazig University Hospitals, to prioritize workaholism predisposing factors and to assess its implications on their lives and mental health.

**Patients and Methods**: A cross-sectional study was executed among working physicians of Zagazig University Hospitals, where 262 physicians were recruited. Sociodemographic and occupational characteristics were recorded, in addition to validated questionnaires for assessment of workaholic character among the participants through Work Addiction Risk Test (WART) and part from Work Assessment Questionnaire (WAQ) inquiring about unpleasantness, Psychological Capital Questionnaire (PCQ), Quality of Life (QoL) Questionnaire, and General Health Questionnaire (GHQ).

**Results:** About 14.5% of physicians are workaholics, 30.2% are at risk and 55.3% are non-workaholics. Most workaholic physicians are suffering from unpleasantness, having lower quality of life and general health parameters and significant decrease in psychological parameters.

**Conclusion**: a significant association between workaholism and bad general health condition, poor mental health and quality of life are common among physicians, which needs better handling of their work schedule and thinking about their work attitude.

**Keywords:** Workaholism, Prevalence, Risk factors, Work Addiction Risk Test, Work Assessment Questionaire, Psychological Capital Questionnaire, Zagazig University.

## INTRODUCTION

Having a job is important for most individuals because it offers us a sense of purpose and provides us with a variety of benefits. Some people, for whatever reason (maybe both internal and external), appear compelled to work excessively and compulsively. People like this are typically labelled as "workaholics." [(1)]. **Andreassen *et al.*** [(2)] defined as "an excessive preoccupation with, and investment of time, energy, and focus on one's job to the detriment of one's personal relationships, other activities, and health. Many different things might set off or keep someone in a state of workaholism[(3)]. Recently, there has been the greatest consensus on the idea that workaholism is an addiction, particularly among **Sussman[(4)]** as well as **Andreassen *et al.*** [(5)].

**Taris *et al.* (2008)** identifies two primary factors that contribute to workaholism; First, there is the human element, which is exemplified by the action of working hard, which might mean putting in extremely long hours. The second aspect is psychological and takes the form of a preoccupation with one's work, such as a failure to disengage and an excessive need to do tasks.

As a whole, the healthcare industry operates in environments that demand exceptional effort from everyone involved. Work requirements have the potential to become major sources of stress that permeate every aspect of an individual's existence. It's common knowledge that doctors tend to be workaholics since they care so deeply about their careers. Workaholism, by its very definition, cannot be diagnosed solely by quantitative criteria, such as the amount of time spent working each week or how well they've adjusted to their workplace [(1-3)].

The core idea of workaholism is an inward obsession with one's work, which is linked to many undesirable consequences [(2, 5)].

Talking about workaholism necessitates bringing up "work ethic," which is defined as "a set of attitudes and beliefs that makes work a major value in life and that hard work is a means to success. While the Japanese work ethic is well-known, the country's reputation for workaholism is not. Death from overwork, known as Karoshi in Japan, is as common as heart disease, starvation diets, and suicide there. Overwork-related deaths in Japan are common, with the National Defense Council for Victims of Karoshi putting the annual burden at 10,000 [(6)].

Lower levels of happiness in both one's personal life and one's career have been linked to increased work motivation [(7)]. Furthermore, it has become clear that workaholism is associated with worse levels of psychological well-being, happiness, and self-perceived



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health [8], together with assessments of one's own efficiency on the job [9].

While several theories offer unique insights into the nature and causes of workaholism, they are not incompatible with one another. Predispositional risk factors for workaholism include things like wants, values, features, and genes, as well as things like social learning, specialized culture, behavioral reinforcements including organizational incentive systems, satisfaction, complaints, and compliments, and genetics [3].

Workaholism is different from working excessively because of an internal motivation (such as an urgent need for money) or an external motivation (such as a high volume of orders). Just recently, researchers were able to single out workaholics from three other groups who all seemed to share the same propensity toward chronically high levels of invested effort at work. They were categorized as either "work-devoted," "intimacy-avoiders," or "leisure-uninterested," all of whom put in long hours at the office to compensate for their lack of personal interests outside of work [10].

Negative physical, mental, and social effects of workaholism on the workaholic and his loved ones cannot be discounted. The office culture could suffer as a result [3].

Neglecting loved ones, cutting back on friends, unable to work as a team, feeling increasingly alone and unwarranted of others around you are all social effects of being a workaholic [11].

Only six of the many possible conceptions of work-life balance were found to be valid: (1) several roles; (2) distribution of roles fairly; (3) being satisfied while doing several roles; (4) completion of duty prominence between many roles; (5) connection between facilitation and conflict; and (6) a sense of control over various responsibilities [12].

Many researches have confirmed the harmful effects of workaholism. It's possible that there is no well-established therapy for workaholics. There is a dire need for additional research in this area [3].

Healthcare workers require an optimistic outlook to view problems as challenges rather than roadblocks, which will increase their efficiency.

Workaholism in Egyptian working force is still a unknown and needs more clarity to prevent it and abolish its drawbacks.

The objectives of the current study:

(1) to measure the prevalence and risk of developing workaholism among a sample of staff doctors of Zagazig. University hospitals;

(2) to clarify workaholism predisposing factors within this working group;

(3) to assess workaholism implications on their life and mental health. It is a message of warning from Workaholism.

## SUBJECTS AND METHODS

**Study design**: A cross-sectional study.

**Sample size**: According to the study, 24.5% of Egyptian healthcare workers (HCWs) suffer from workaholism [13]. The total working force of physicians in Zagazig University hospitals of all clinical departments weather hot or cold specialties is 1402 doctors, estimating 80% power of the study and 5%-margin of error, the sample size was calculated to be not less than 237 subjects.

**Inclusion criteria**: Male or female working physicians in Zagazig University Hospitals, who accepted to participate in the study.

**Exclusion criteria**: Refusal for participation in the study.

**Data collection**: A sample of 237 working physicians was needed to fulfill the aim of the study. Previously prepared questionnaires were distributed in a larger number in all clinical departments of Zagazig University Hospitals, after permission of the heads of clinical departments. The questionnaires were left under supervision of the head nurses to be filled in by working physicians in these departments and collected later on after one month. Incomplete or incorrect questionnaires were excluded. 262 questionnaires were filled in a correct and complete way for further statistical analysis.

***Administered questionnaire inquired about:***

**1. Relevant sociodemographic and occupational data.**

**2. Assessment of workaholic character among studied group:**

a) **Robinson *et al.*** [14] created the Work Addiction Risk Test (WART). Questionnaires sent to doctors who treat patients at risk for job addiction to elicit information regarding symptoms. There are 25 different assertions in the WART questionnaire, each of which is evaluated on a 4-point Likert scale ranging from "never true" (1) to "always true.(4)" With a possible maximum score of 100, the scale runs from 25 (low risk of job addiction) to 25 (high risk of work addiction). Scores between 25 to 56 indicated a moderate chance of becoming addicted to one's job; medium-risk ranged from 57 to 66, and high-risk ranged from 67 to 100.

b) Unpleasantness assessment (fourth part of Work Assessment Questionnaire **WAQ** [15]**:** it consists of 4 questions each one of it has 5 responses ranges from strong agreement to strong disagreement.

**3. A revised version of the WHO Quality of Life Scale (WHOQOL-BREF)** [16] **with 26 items was utilized.** Geographical, racial, and cultural diversity are all well-served. Specifically, there are 4 distinct categories: 1) scale related to physical activity (*R: ranges from seven to thirty five*), 2) scale related to mental health (*R: ranges from six to thirty*), 3) scale related to social activity (*R: ranges from three to fifteen*), and 4) scale related to environment activities

(*R: ranges from eight to forty*). Every one rated on a scale from 1 to 5. Specifically, it takes a look at how you've been doing over the course of the preceding four weeks. The scores for each domain represent the totals for all questions in that domain, not means of averaging the scores. The WHOOP-BREF scores are converted to the WHOQOL-100 by multiplying by 4.

**4. Psychological capital Questionnaire (PCQ-12 Short form):** The Psychological Capital Questionnaire is the source for this (PCQ-24). There are four-factor structure included; self-efficacy (numbering of items from 1 to 4), hope (numbering of items from 5 to 7), resilience (numbering of items from 8 to 10), and optimism (numbering of items from 11 to 12). With the help of a 6-point Likert scale ranging from one: disagree strongly, up to six: agree strongly was used [(17)].

**5. General Health questionnaire (GHQ-28)**: The level of health was evaluated using four different scales: 1-symptoms of body, 2- insomnia or anxiety, 3-disturbance of social life and 4-depression signs. An indicator of current mental health, Use of a four-point Likert scale, with values ranging from; one equals Not at all, up to four: Much more than usual) was utilized; the lower the score, the better your mental health [(18)].

**Ethical consent:**

**An approval of the study was obtained from Zagazig University Academic and Ethical Committee. Every participant signed an informed written consent for acceptance of participation in the study. This work has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for studies involving humans.**

***Statistical analysis***

Statistics were performed using SPSS version 22 (Statistical Package for Social Sciences). Qualitative information was displayed in the form of number and frequency. Quantitative information was displayed using measurements of central tendency (arithmetic mean) and dispersion (standard deviation). To identify the causes of workaholism, a regression analysis was conducted. When the p-value is equal or less than 0.05, statistical significance is assumed.

**RESULTS**

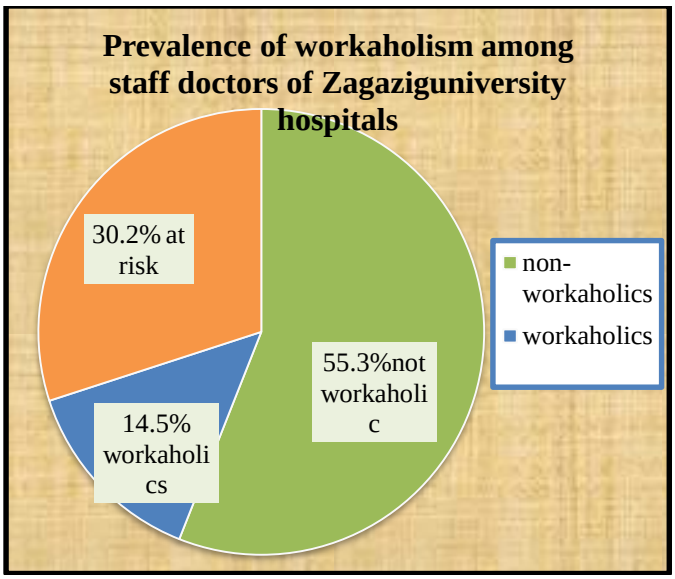


**Figure (1): Frequency distribution of workaholic character (according to WART) [(14)] among working physicians in Zagazig University Hospitals.**

Figure 1 shows that 14.5% of them are workaholics and 30.2% are at risk for workaholism while 55.3% are free.

Table (1) shows that there is significant association between workaholism and age group <40 years, male sex, surgical specialties and working hours >60 hours. Workaholism was less frequent among married physicians, after M.D, and specialists in cold internal medicine.

**Table (1): Relation between physicians characteristics and workaholism character among working physicians of Zagazig university hospitals.**

| Socio-demographic and occupational characteristics | Workaholic physicians ( n=38 ) | Non-Workaholic physicians ( n=145 ) | At risk group (n=79 ) | $X^2$ | P-value |
|---|---|---|---|---|---|
| **Age** | | | | | |
| <40 (n=120) | 25 (65.8%) | 55 (37.9%) | 40 (50.6%) | 10.5 | 0.005 |
| ≥40 (n=142) | 13 (34.2%) | 90 (62.1%) | 39 (49.4%) | | S |
| **Sex** | | | | | |
| Male (n=135) | 31 (81.6%) | 62 (42.8%) | 41 (51.9%) | 18.2 | <0.001 |
| Female (n=127) | 7 (18.4%) | 83 (70.3%) | 38 (48.1%) | | HS |
| **Marital status** | | | | | |
| Married (n=162) | 22 (57.9%) | 85 (58.6%) | 55 (69.6%) | 2.91 | 0.23 |
| Unmarried (n=100) | 16 (42.1%) | 60 (41.4%) | 24 (30.4%) | | NS |
| **Specialties** | | | | | |
| Cold Internal medicine | 9 (23.7%) | 83 (57.2%) | 19 (24.1%) | | |
| Surgical specialties | 16 (42.1%) | 40 (27.6%) | 31 (39.2%) | 31.6 | <0.001 |
| Critical care specialties | 13 (34.2%) | 22 (15.2%) | 29 (36.7%) | | HS |
| **Post-graduate level (academic qualifications):** | | | | | |
| Pre-MD | 23 (60.5%) | 61 (42.1%) | 41 (51.9%) | 4.91 | 0.09 |
| After MD | 15 (39.5%) | 84 (57.9%) | 38 (48.1%) | | NS |
| **Number of working hours (private or governmental)** | | | | | |
| ≤48 h. | 6 (15.8%) | 53 (36.6%) | 20 (25.3%) | 40.4 | <0.001 |
| >48 – 60 h. | 14 (36.8%) | 79 (54.5%) | 28 (35.4%) | | HS |
| >60 h. | 18 (47.4%) | 13 (9.0%) | 31 (39.2%) | | |

Table 2 shows that strong correlations exist between workaholism and parameters of health (somatic dysfunction, anxiety/depression, symptoms of depression) except social dysfunction parameter. Also all domains of quality of life showing significant decrease with workaholism except the environmental domain while all psychological capital questionnaire parameters (efficacy, hope, resilience and optimism) are significantly increased with workaholism.

**Table (2)**: **Distribution General Health Questionnaire parameters (GHQ), Quality of life (QOL), as well as Psychological Capital Components (PCQ) questionnaires among working physicians according to their workaholic character.**

| Variable | Workaholic physicians (38) Mean ± SD | Non-workaholic physicians ( 145 ) Mean ± SD | At risk group (79) Mean ± SD | F-test | P-value |
|---|---|---|---|---|---|
| **GHQ** | | | | | |
| Somatic dysfunction | 6.45 ± 0.55 | 6.11 ± 0.22 | 6.12 ± 0.15 | 23.95 | <0.001 |
| Anxiety/Insomnia | 6.76 ± 1.35 | 5.66 ± 1.44 | 6.45 ± 075 | 17.01 | <0.001 |
| Social dysfunction | 7.55 ± 1.11 | 7.12 ± 1.68 | 7.25 ± 1.65 | 1.11 | 0.33 |
| Symptoms of depression | 2.23 ± 0.44 | 2.11 ± 0.35 | 2.25 ± 0.55 | 3.12 | 0.04 |
| **QOL** | | | | | |
| Physical | 62.2 ± 5.7 | 64.3 ± 3.14 | 64.1 ± 5.12 | 3.72 | 0.02 |
| Social | 61.12 ± 5.13 | 63.3 ± 5.11 | 61.66 ± 4.33 | 4.59 | 0.01 |
| Mental | 58.92 ± 5.44 | 61.3 ± 4.23 | 60.33 ± 6.66 | 3.37 | 0.03 |
| Environmental | 66.11 ± 3.44 | 66.71 ± 2.43 | 66.31 ± 2.44 | 1.11 | 0.32 |
| **PCQ** | | | | | |
| Efficacy | 17.2 ± 3.11 | 15.56 ± 2.15 | 16.44 ± 3.22 | 6.86 | 0.001 |
| Hope | 11.41 ± 3.48 | 9.76 ± 2.31 | 11.1 ± 2.77 | 9.82 | <0.001 |
| Resilience | 9.34 ± 2.01 | 8.45 ±2.11 | 9.22 ± 2.1 | 4.88 | 0.008 |
| Optimism | 5.65 ± 1.09 | 4.77 ± 0.92 | 5.32 ± 0.98 | 14.66 | <0.001 |

Figure 2 shows positive correlation between working hours and unpleasantness.

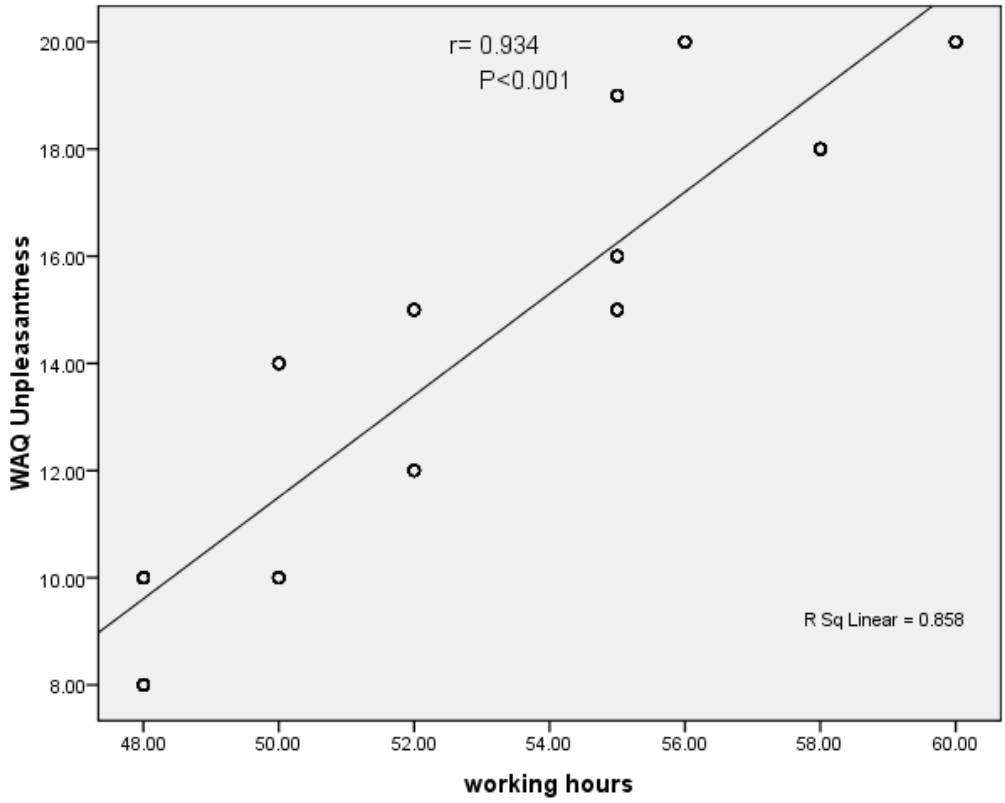


**Figure (2): Shows the correlation between working hours and unpleasantness.**

Table 3 shows that working in critical care specialties was the most significant risk factor for workaholism followed by male gender.

**Table (3): Logistic regression analysis for significant risk factors of workaholism among working physicians in Zagazig University hospitals.**

| **Predictors** | **B** | **S.E.** | **Wald** | **P-value** | **OR** | **95.0% C.I.** | |
|---|---|---|---|---|---|---|---|
| | | | | | | **Lower** | **Upper** |
| Age <40 years | 0.002 | 0.342 | 0.125 | 0.221 | 1.12 | 0.23 | 1.99 |
| Male gender | 0.001 | 0.55 | 0.104 | **0.02** | 2.22 | 0.85 | 4.15 |
| Cold surgical specialties | 0.0008 | 0.651 | 0.111 | **0.201** | **0.76** | **0.15** | **0.98** |
| Critical care specialties | 0.1002 | 0.020 | 0.801 | **0.01** | **4.35** | **1.66** | **6.18** |
| Long working hours | 0.001 | 0.324 | 0.234 | **0.2** | **3.15** | **1.22** | **7.13** |

## DISCUSSION

The social activity of working can have multiple impacts on the worker's well-being. In this research we tried to measure assess the risk of developing workaholism between doctors as a group characterized by special work nature that deals with stressful events and needs certain concentration and critical follow up.

About 10% of the population in the United States may be workaholics, according to surveys [4]. Other investigations have shown occasionally far higher values [2]. Recent studies have found that workaholism is more common in managerial positions in certain industries (consultancy, commercial trade construction, agriculture, as well as communication,). Doctors are at more risk of workaholism in relation to general population, as shown in Figure 1, demonstrates that WART revealed a high workaholism proportion between physicians: 14.5% of participating physicians are already workaholics, 30.2% of them were considered as at risk group while, only about half of them (55%) were free. **Kasemy *et al.*** [13] assessed warkaholism among HCWs and recorded 24.8% workaholism [19]. **Schaufeli *et al.*** [20] reported high workaholism in the Netherlands (41.7%) and Japan (31.9%). **Hu and colleagues** [21] had a justification for this variability by the fact that Western cultures generally encourage more work engagement.

In nurses, lower affection was discovered where only 6% were workaholics and 40% are at risk [22]. It's a high number, but it may vary by profession because to the significant correlation between certain types of labour and addiction. In addition, workers who are both highly engaged and highly stressed are more likely to develop a job addiction than their less stressed counterparts [23].

Detailed investigations about workaholism risk factors in **(table 1)** revealed that <40 years of age group, male sex, surgical specialties and working hours >60 hours were significant predictors for workaholism. In nursing population, critical care specialties were evident among workaholic nurses and doctors [13, 22]. In contrast to our results, seniority, education and older age group >45 years of age were significant also among nurses [22].

In accordance with our results, increased hours worked/week was a significant workaholism risk factor together with younger age groups and male gender among HCWs [13, 24]. Given that men are more likely to put in extra hours at the office, stereotypes about males as workaholics are justified. **Buelens and Poelmans** [25] discovered the total opposite. Due to the maturing effects of age and the concomitant work pattern adjustment, the present study found that workaholism was associated with a younger age group. These findings are consistent with those of **Andreassen *et al.*** [26], **Taris *et al.*** [27] as well as **Kasemy *et al.*** [13].

Regarding health outcome of workanolism, a study by **McMillan and O'Driscoll** [28] denied the harmful effect of workaholism generally and concluded that In 11 indices covering mental, physical, and overall health, as well as health trends measured twice, six months apart, workaholics and non-workaholics reported nearly identical outcomes. Where there was a difference in scores, it was typically less than 5% and was never statistically significant.

This study and other studies investigated workaholism effects and hypothesized that workaholism may threat the general wellbeing of the individual affecting general health and quality of life domains.

When compared to the general population, table 2 shows that workaholics have a significantly lower quality of life in every area except one: the environment. This is likely due to the increased mental, organizational, and emotional demands placed on them as a result of the long hours and unpredictable schedules typical of HCWs (dealing with patients suffering). **Kasemy *et al.*** [13] gave the same feedback in their study. Depression, anxiety, and sleep disorders are just a few of the numerous detrimental mental and physical health effects that have been linked to workaholism and other forms of work addiction [23]. based on clinical-research work workaholism has its drawbacks: In the beginning, people take on more responsibilities than they can handle and are so busy that they sometimes forget about the needs of those around them. The worker withdraws from personal relationships and starts to feel the physical effects of their work, such insomnia and weight gain, during this stage. Eventually, the worker will have more severe mental and bodily effects, known as the late stage. (Workaholism is linked to poor mental health and high PCQ scores, as reported by Diane Fossel across a range of professions [13].

The majority of studies have linked workaholism to negative outcomes like worse health and happiness and increased tension between work and personal life [3].

As regard PCQ, a high level of resilience, hope, efficacy and optimism was detected in agreement with **Kasemy *et al.*** [13] as psychological wellbeing promoters in cases of workaholism, the detrimental effects of stress on doctors can be mitigated and the good effects of stress can be supported by creating a resilient work environment. Professional physicians need optimism to view the world in a positive light, to view challenges as opportunities rather than setbacks, and to view setbacks as challenges to be overcome rather than obstacles to be avoided. Working hard, then, is linked to greater levels of and resilience, hope, as well as optimism.

The line graph of figure 2 proved a positive correlation between number of hours worked/week and unpleasantness which was expected and detected before

by **Kasemy *et al.* [13]**. The condition may occur because, workaholics are not merely working long hours, but they struggle to psychologically detach from work which often goes together with stress. On the other side, **Chamberlin and Zhang [29]** found that most workaholics are aware of their obsessive work habits, but have a defense that they love their jobs. Another point of view reported by **Chamberlin and Zhang [29]** that working long hours is not as bad as obsessing over work.

Three factors were extracted on regression analysis for workaholism predisposing risk factors: male gender and, both surgical or critical care specialties which were addressed previously by **Kasemy *et al.* [13]** study. Surgical and critical care specialties are suffering from high work load and maximal time pressure leading to workaholism**. Charkhabi [23]** emphasized this results, a rise in job demands is linked to an increased likelihood of work addiction, but an increase in job control does not have this effect. Active, high-strain workers are more likely to become addicted to their jobs than their passive, low-strain counterparts.

In conclusion, among workaholic HCWs, there is a statistically significant correlation between workaholism and nearly all criteria of mentally bad health, including low quality of life and an altered psychological state. Better orientation of future drawbacks of workaholism may protect against expected deterioration, conserve their energy and maintain work performance.

Our study recommends:

1. Excessive or obsessive work must not be faced with a positive reaction from higher authorities.
2. Addressing Examining healthcare professionals on a regular basis to take into account their individual qualities and the impact of their working conditions is essential.
3. Future researches should encourage longitudinal studies.
4. Firm parameters for mitigating unhealthy work behavior must be applied by law.
5. A Message of warning must be delivered to physicians and at risk working groups: (a) Strive to be efficient with your time so that you can accomplish more in less time and with fewer worries. Develop a strong work ethic. (b) When it's necessary, put in some extra hours, but don't let it become excessive to the point that it threatens your health. Be dedicated and enthusiastic about your work but remember to make time for what's truly important. Get your life and your job in better balance. (c) Learn how to shut it down. Make a deal with yourself that you will not work past a certain time, and shut everything down. (d) Change your mindset every now and then. (e) Don't bring work to home. (f) Meditate as you can to overcome. (g) Set your healthy boundaries. (h) Changing major aspects of one's way of life. (i) Limiting one's daily attention to the most pressing concerns. (j) To minimize your exposure to major sources of stress. (k) Never put in more than 40 hours in a week unless it's an emergency. (l) Achieving a balance between work and free time. (m) Focus on improving your life's equilibrium by scheduling your time more wisely. Even with a heavy workload, it plays a significant part in stress management.

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**Author contribution:** Authors contributed equally in the study.

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