



## Evaluating the Level of Burnout among Healthcare Professionals

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**Abstract.** The professional staff in human service institutions are often required to spend considerable time in intense involvement with other people. Frequently, the staff–client interaction is centered around the client’s current problems (psychological, social, and/or physical) and is therefore charged with feelings of anger, embarrassment, fear, or despair. Solutions for these problems are not always obvious and easily obtained, thus adding ambiguity and frustration to the situation. For the helping professional who works continuously with people under such circumstances, the chronic stress can be emotionally draining and poses the risk of burnout. Extensive literature highlighted that healthcare professionals’ work is relentlessly overloaded, emotionally overwhelming, escalating their private life, and thus favoring burnout development. In the present research, there was found a significant difference ( $p < 0.001$ ) between the burnout level (Maslach HSS) of staff working in state hospitals and staff working in private hospitals. None of the other differences were significant: age ( $p = 0.155$ ), gender ( $p = 0.083$ ), work experience ( $p = 0.480$ ), and job ( $p = 0.015$ ).

**Keywords:** burnout, healthcare professional, medical staff, Romania

## Introduction

In these last decades, the studies on the mental health of medical staff have become an important subject in international literature; however, there are few information regarding the level of burnout in medical staff. Their specific job requirements often consist in dealing with urgent situations in a high level of human risk. Researchers showed that burnout syndrome does not have immediate manifestations but appears as a gradual reaction of emotional breakdown due to the prolonged exposure to stress factors, which leads to an increase in dehumanization level and professional dissatisfaction (Leiter 1991).

Burnout is often defined by fatigue, demoralization, dissatisfaction, incapability, ageing, and decrease in motivation and in the joy of living. This is experienced

personally because of the working conditions and the expectation for a higher performance (Demerouti et al. 2011).

The term was introduced in the 1970s by psychologist Herbert Freudenberger, who in 1980 published *Burn Out: The High Cost of High Achievement. What It Is and How to Survive It*, in which he described this disorder (Freudenberger 1970).

The burnout syndrome is often described as having three dimensions: emotional exhaustion, depersonalization, and professional achievement. In emotional exhaustion, we perceive the emotion when the person feels emptied of emotional resources and becomes extremely vulnerable to stress agents. Depersonalization means that the person is distancing himself from other people, reduces personal achievements, and lives in a critical spirit (oriented towards others and himself equally), associated with a decrease in efficiency but also with negative thinking and evaluation (Demerouti et al. 2011).

## **Theoretical framework of the studied problem**

### **The risks of burnout**

Employees with a higher risk of burnout are likely to present more health problems such as anxiety, depression, sleeping disorders, memory loss, and neck pain (Peterson et al. 2008). In a study among 3,000 employees in Finland, Ahola (2007) reported a widespread depression, anxiety, and alcohol dependence among employees who suffered from burnout. Also, Hakanen and Schaufeli (2012) found among 2,000 dentists a positive correlation between burnout and emotions of depression and dissatisfaction with life. Also, regarding physical health, Kim et al. (2011) showed that social workers with higher levels of burnout reported more health-related problems through the research (3 years), i.e. insomnia, headaches, infections of the respiratory and the gastrointestinal system. Burnout syndrome is also an independent risk factor in infections such as the flu (Mohren et al. 2003), in type 2 diabetes (Melamed et al. 2006), and in cardiovascular diseases (Ahola 2007). In a 10-year research by Ahola et al. (2010), it was deduced that burnout, especially exhaustion, would be a risk of overall survival.

One of the most frequently quoted models of burnout, i.e. the *Job Demands–Recourses Model* (Demerouti et al. 2001), suggests that the working conditions are the main antecedents of the syndrome of burnout. The high job demands, which can be physical, emotional, cognitive, or organizational, are doubled by insufficient and inadequate resources, and this results in developing the syndrome. High workload is a result of job demands, which is the most powerful exhaustion predictor (Lee & Ashforth 1996). The increase of interest in burnout syndrome is because more and more people suffer from it in different professions.

Epidemiological data suggests the seriousness of this problem and the negative effects it has in the workplace and at home. This alone explains why there are this many studies of burnout in the last 40 years (Epp 2012). These days, employees are thinking and worrying more and more about their work life (Rebber 1985), where the work-related stress is a psychological stress, wherefore it results in compulsion and physical, mental, and social tension. The satisfaction in work is one of the most important factors of increased performance and provokes positive opinions about the individual's work, which stands in correlation with the salary, social value of the job, and the work (Rebber 1985).

The syndrome of burnout affects physical, academic, and social performance at the same time. It is a procedure when positive or negative reactions are given under stress. Burnout provokes aggressiveness, decrease in performance, quality, and competence in the job, wherefore it has effects not only on the individual but also on the people with whom s/he is in interaction with. Several studies describe that women are affected by more stress than men and cope with it in different ways (Witkin 2001). Others (e.g. Bakker et al. 2014) have classified unusual work conditions as important factors in work-related stress, which lead to anxiety and depression. Some (e.g. Ahola et al. 2010) argue that the high level of control and the low complexity of the job generate a decreased level of stress, and the employee feels valued.

Specialized literature talks about sociodemographic, vocational, and psychological variables which coexist with the syndrome of burnout. Important research questions include these variables' relevance and their relationship with the syndrome. This means we have to research the risk factors and protective factors which are related to different professions. The importance of these variables are recognized by all the researchers, but at the same time these produce the most conflicting results (Blegen 1993, Prins et al. 2007, Zagaro & Soeken 2007).

In consequence, exhausted employees can manifest one or more of the withdrawal behaviors (Hanish 1995), which can be lateness, absence, or turnover (Maslach et al. 2001). Employees which remain at work ill (presentism), have a lower performance (Cooper 1996) because they have to invest more time and energy in their work. Demerouti et al. (2009) found mutual relations between burnout, job demands, and presentism among nurses who work at hospitals.

## **The causes of burnout**

The syndrome of burnout is one of the most popular subjects in occupational health. Studies show that employees who present higher levels of risk in developing the syndrome (for example, who are chronically tired and have a negative and critical opinion about work) manifest affected work performance and can develop serious health problems (Bakker et al. 2014). A prominent problem consists in the matter

that employees who present higher levels of burnout tend to remain in trouble. Furthermore, research shows that this syndrome can become stable for 5, 10, or even 15 years (Bakker et al. 2000, Hakanen et al 2011, Schaufeli et al 2011).

Which is the reason that burnout persists this long? Until now, the syndrome was not charged of being a continuous process (ten Brummelhuis et al. 2011). Previous studies suggest that the syndrome has structural causes in the professional environment, especially high job demands and low resources (Alarcon 2011, Demerouti et al. 2011, Lee & Ashforth 1996). Another study also indicates that individual factors, such as neurosis or perfectionism, play an important role in the development of burnout because these features predispose the employees to face the demands improperly (Swider & Zimmerman 2010). Despite this knowledge, we know very little about the individual roles in the process of developing the syndrome of burnout.

The causes of burnout are divided into two categories: situational and individual factors (Bakker et al. 2014). Situational factors include job demands and resources. Job demands lead to fatigue and psychological distancing from the job (Bakker et al. 2000). Ambiguity, conflict, stress, workload, and tension are among the most important job demands which lead to burnout (Alarcon 2011, Lee & Ashforth 1996). The resources are physical, psychological, social, and organizational aspects of work, which help in reaching a purpose, reduce job demands, and stimulate personal development through valuable work (Bakker & Demerouti 2007). The relationship between resources and burnout remains constantly negative (Demerouti et al. 2001).

A possible explanation for the negative relation between burnout and performance would be that tired employees cannot concentrate and therefore make more mistakes, whereas burnt-out employees do not want to help others (Swider & Zimmerman 2010) and do not receive any help themselves, which leads to a decrease in productivity (Bakker et al. 2014).

In the 21<sup>st</sup> century, burnout has been investigated from the individuals' perspective (Bergman & Lundh 2015, Bergman et al. 2003). In the context of burnout, this approach is capable of revealing the intra-individual heterogeneity of the syndrome and its development in time. More specifically, this means identifying different types of models of individual burnout and individual development trajectories. This approach also makes the distinction between burnout and other work-related well-being variables on an interpersonal level. However, person-oriented analytical methods are based on the heterogeneity of the population (Laursen & Hoff 2006).

## **Prevalence among health professionals**

Professional staff in human service institutions are requested to spend time with other people with intense implication. Most often, the situation between the staff and the patient is concentrated on the current problems of the patient (psychological, social, or physical), wherefore they are loaded with emotions of anger, rage, embarrassment, fear, and despair. The solutions for these problems are not always obvious and easily obtained. Therefore, for the helping staff, who often work with patients under these circumstances, chronic stress can be overwhelming and raise the risk of burnout (Bria et al. 2012).

When the emotional resources are depleted, employees feel that they cannot give more of themselves (on a psychological level). Another aspect would be the evolution of negative, cynical attitudes and emotions towards the patients. These negative aspects are related to emotional exhaustion. These harsh and callous perceptions can lead to a phenomenon where the helping staff thinks that the patient deserves the problems that he is having (Ryan 1971).

More specifically, the syndrome of burnout is beginning to be considered as an occupational disease frequent among medical staff, for example, in Spain (Paris & Hoge 2012, Prins et al. 2007) but in other countries as well (Kiekkas et al. 2011, Soler et al. 2008). According to Schanafelt et al. (2012), medical staff have the highest levels of burnout. Recent studies show that affected doctors, nurses, and young professionals are predisposed to substance abuse (Moustou et al. 2010, Oreskovich et al. 2012), depression (Hakanen & Schaufeli 2012), insomnia (Vela Bueno et al. 2008), and a higher rate of suicidal thoughts (Shanafelt et al. 2011, Van der Heijden et al. 2008). The hospitals' performance is corrupted by burnout because of employee turnover (Leiter and Maslach 2009), absenteeism (Davey et al. 2009), and premature retirement (Linzer et al. 2001). Results indicate that the syndrome of burnout predicts suboptimal behaviors of care (Shanafelt et al. 2002) and serious medical errors (Shanafelt et al. 2010).

Studies show that burnout factors are high workload in little time (Pisanti 2011), taking care of demanding patients (Escriba-Aguitar et al. 2006), or large inequalities in the nurse–patient ratio (Gunnarsdottir et al. 2009). Also, cynicism is due to the lack of empowerment (Laschiger et al. 2013) and social support (Prins et al. 2007).

Extensive studies suggest that the work of medical staff is overloaded, emotionally overwhelming, and it escalates with family life, thus predicting burnout (de Jonge et al. 2008, Schanafelt et al. 2012, Schirom et al. 2010, Xantopoulou et al. 2007).

A systematic review of the risk factors among medical staff in Europe enumerates overload, emotional requirements, and negative work–life balance as prominent risk factors (Bria et al. 2012). Empirical studies established that quantitative (overload, extended hours of work) and qualitative (emotionally loaded situations,

work–home interference) requirements are important marks of burnout among health professionals and, consequently, contribute to the lowered quality of the health system (Bakker et al. 2004, LeBlanc et al. 2001, Prins et al. 2007, Schanafelt et al. 2010, Schirom & Nirel 2006). Medical staff in Romania reported high levels of burnout and negative work–life interference (Bria et al. 2013, Voicu 2006). Qualitative studies describe these levels as the consequence of the constant change of legislation, the scarcity of resources, poor system reputation, and high emigration rates of the workforce (Popa 2013, Spănu et al. 2012).

This disorder has serious repercussions on employees and the institutions where they work, but the effects can be more serious, while the medical staff suffers from burnout, wherefore they are not capable of providing quality services, and the whole health system suffers from this (Ortega & Lopez 2004).

### **The Romanian situation**

For 25 years, the Romanian healthcare system was in constant transition and reform, without continuity and clear objectives. This is probably due to the insufficient funding and the frequent circuit of the ministries (Todorova et al. 2009, Vlădescu et al. 2008). The World Health Organization in 2009 declared that the Romanian healthcare system is among the most poorly financed ones in Europe, and it has a low priority regarding the distribution of resources among public sectors. In 2006, the GDP share of healthcare was 3.9%, less than half of the European average, i.e. 8.92%, and less than other countries', for example, Hungary's (8.3%). Although the salary in healthcare is less than the national average, in 2010, there was a 25% decrease in this sector. Furthermore, Romania is one of the European countries with the lowest density of medical staff, meaning 2 doctors and 4 nurses per 1,000 people, which indicates the overwhelming workload they are exposed to (Băban et al. 2005, Schafer et al. 2010, Bria et al. 2013).

Studies agree that emotional demands are the predictors of burnout, but only few investigate the role of cognitive demands (Bakker et al. 2011, de Jonge et al. 2010). Although the negative interaction between work and home was evaluated by some authors as a mediator between risk factors and burnout (Geurts et al. 1999), most of the literature indicate that it is a predictor of the syndrome (Bakker et al. 2004). Based on the demands–resources model, there were studies carried out among healthcare professionals, for example, doctors in the primordial prophylaxis (Schaufeli et al. 2011) or young doctors (Schaufeli et al. 2009) but only a few in ambulance personnel (van der Ploeg & Kleber 2003). Studies show that ambulance personnel has a higher risk of developing physical and mental problems, although the results vary in different countries (Steurd et al. 2011). Ambulance personnel in Romania has medium to high levels of burnout according to one of the few studies treating this subject (Popa et al. 2010).

## Purpose of the study, hypotheses, and methodology

### Purpose of the study and hypotheses

The aim of the present study is to update the knowledge in the field of burnout among healthcare professionals and also to raise attention to this non-functional aspect of the healthcare system in Romania. Furthermore, the purposes include determination of an average level of burnout among healthcare professionals (doctors and nurses) and the differences in burnout between those who work in governmental hospitals and private ones, but also the differences in burnout depending on gender, age, and experience.

The study proposes the following hypotheses:

- Medical professionals who work at state hospitals have higher levels of burnout than the ones who work at private hospitals.
- Nurses have higher levels of burnout than doctors.
- The level of burnout increases with the time spent in the domain.
- Burnout levels do not correlate significantly with sex.

### Methodology

The subjects of the research are doctors and nurses who work at state hospitals as well as private ones, all of them from Târgu-Mureș (Romania). In total, there are 60 subjects from which 15 doctors work at state hospitals, 15 at private hospitals, 15 nurses work at state hospitals, and 15 at private hospitals – in total, 12 men and 48 women, aged between 22 and 54 years old.

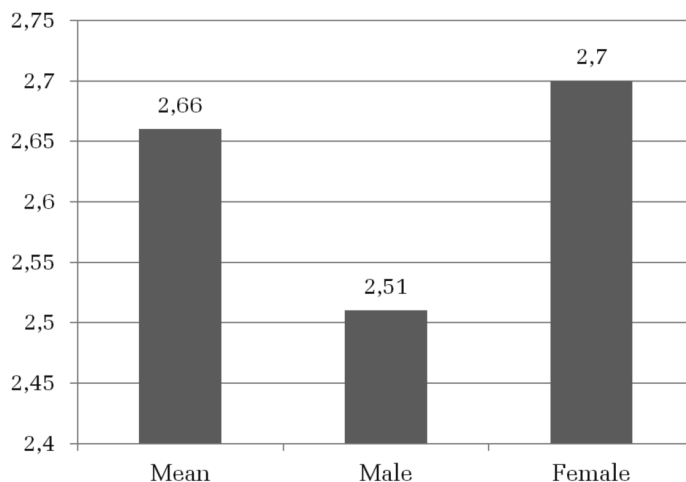
The sampling method was non-probabilistic and was based on voluntary participation. I went to several hospitals, advertised the research, and went back after a week to collect the questionnaires.

The questionnaire was based on the *Maslach Burnout Inventory – Human Services Survey* (MBI-HSS), which consists of three dimensions: emotional exhaustion, depersonalization, and personal accomplishment (Maslach et al. 1997). The emotional exhaustion subscale assesses feelings of being emotionally outworn by work. The depersonalization subscale measures an impersonal response toward patients. The personal accomplishment subscale assesses feelings of competence and achievement. In contrast to the previous two subscales, lower means on this sub-scale correspond with higher degrees of burnout, meaning that the values of this subscale had to be reversed in order to get the real data.

Other questions in the questionnaire investigated respondents' socio-demographic background, i.e. age, gender, occupation, and experience in the medical field. The collected data were then introduced into the SPSS statistics program and were analyzed as follows.

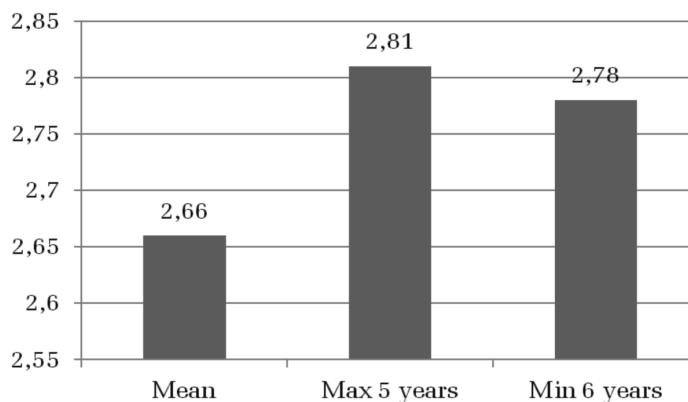
## Research findings

Regarding gender, there were not found significant differences between the burnout levels of men (2.71 – 2.03 – 3.3) and women (2.25 – 2.33 – 3.59);  $p = 0.083$ . The numbers in the parentheses represent the burnout levels degraded to subscales. The first number represents emotional exhaustion, the second number depersonalization, and the third one personal accomplishment.



**Graph 1.** *Gender differences in burnout levels*

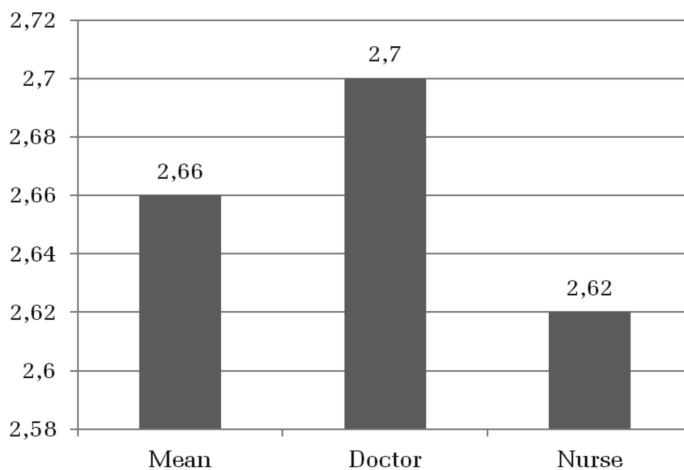
The subjects' experience in the field varies between 1 and 25 years, and this does not have any significant correlation with burnout. Those with maximum 5 years of experience have a satisfaction level of 2.81, whereas those with minimum 6 years have 2.78;  $p = 0.480$ .



**Graph 2.** *Subjects' experiences in the field*

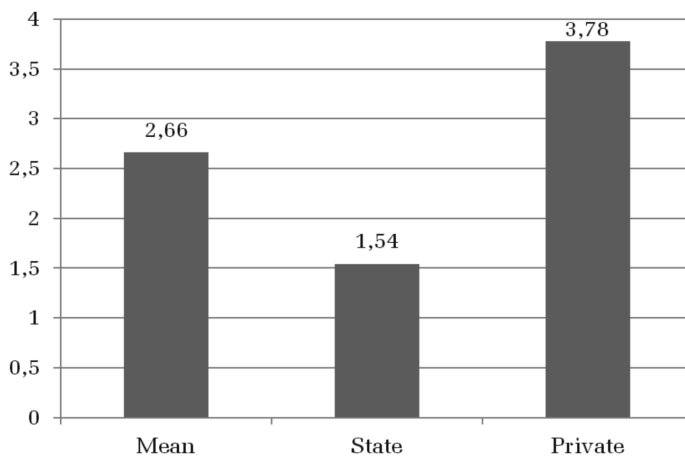


There was not found any correlation regarding the job either. Doctors have satisfaction levels of 3.4 – 2.06 – 3.54, whereas nurses 1.09 – 2.34 – 3.52;  $p = 0.015$ . The three numbers represent the subscales as well.

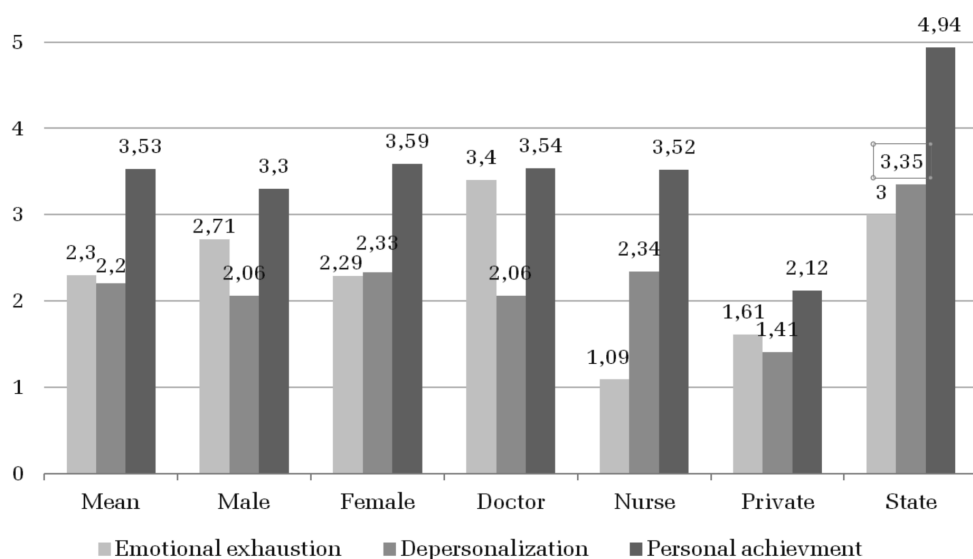


**Graph 3.** *Job differences*

However, there was found a significant ( $p < 0.001$ ) association between the burnout levels of those who work at state hospitals (3 – 3.35 – 4.94) and those who work at private hospitals (1.61 – 1.41 – 2.12).



**Graph 4.** *Workplace differences*



**Graph 5.** *Summary of the results*

Although the present research did not find any differences regarding gender, experience in the field, or the position on the job (doctor or nurse), we did find a significant difference between workers in state and private hospitals, regardless of their jobs. State hospital workers have a much higher burnout level than the ones working in private hospitals. This is due to the very high workload. There is a great number of patients per doctor/nurse per day, every day. This is accentuated by the fact that this county's hospital is much in demand by patients from the whole country.

## Conclusions, discussions, and suggestions for future research

The present results confirm the fact that the Romanian healthcare system is underbudgeted. This fact leads to serious consequences regarding the quality of the healthcare, including the medical staff's health. The Romanian healthcare system has long been confronted with a shortage of personnel and more recently with medical professionals' migration, mostly to western countries. Moreover, the medical professionals' migration was accentuated due to the underbudgeted system and by its slow reform (Popa 2013, Spănu et al. 2012). In line with other studies (Bria et al. 2013, Voicu 2006), we report high rates of burnout among Romanian healthcare professionals.

According to the job demands–resources model of burnout (Demerouti et al. 2001), high job demands combined with insufficient resources are predictive of burnout. In the present study, we tested the impact of different job demands (state and private hospitals) on medical professionals. In line with this model, I found significant differences between the two situations – the state-system doctors and nurses also show higher burnout rates than those in the private sphere.

Some previous research have found significant associations between gender and burnout: Plieger et al. (2015) say that in the male subscales the level of cynicism was higher. According to Maslach and Jackson (1981), females scored higher on emotional exhaustion, whereas males scored higher on depersonalization and personal achievement. We did not find significant derogations regarding gender.

In Maslach's research (1976), burnout is likely to occur within the first two years of one's career, but in the present research there is no evidence of correlation between experience and burnout.

Although I did not find any studies working with different workplace factors regarding burnout, I observed that there are significant differences not only in resources but also in job demands at state and private hospitals; so, I felt free to make the comparison, and it seems it was the only significant difference in this research, regarding burnout.

A more extensive and a deeper research into the differences between these categories' subscales should be carried out: for example, there is a difference between doctors' and nurses' emotional exhaustion. This would necessitate an extensive qualitative research, perhaps a series of interviews and observations.

Obviously, this study needs to be continued on extensive samples, more medical units in more cities, combining quantitative results with qualitative ones in order to be able to generalize the results at the level of the healthcare staff in this country.

All in all, this study confirms Demerouti's Job Demands–Resources model (Demerouti et al. 2001). This is why the most important aspect would be the improvement of the healthcare system in order to minimize the migration of healthcare professionals to more developed countries but also the patients' need to go to these countries in order to receive adequate and quality medical care.

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