What mental health experts in Slovakia are learning from COVID-19 pandemic?

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ABSTRACT

Introduction: The COVID-19 pandemic was confirmed to have spread to Slovakia on 6th March 2020. To date of paper submission, it has very favorable course. However, since the beginning healthcare workers have been working under increasing pressure, anxiety and fear.

Aim: Authors evaluated the psychosocial impact of COVID-19 pandemic on mental health experts and their clinical practice in Slovakia.

Materials and Methods: A total of 157 mental health experts (79% women) submitted their responses via online questionnaire.

Results: The most frequent occupation categories were 38.2% outpatient psychiatrists, 26.1% inpatient psychiatrists and 20.4% psychologists. The mental health experts felt maximum of stress during the peak of Slovak COVID-19 crisis, which was identified as the situation just after the declaring the state of emergency by Slovak government. The main sources of stress were statistical data, prognoses and other public presented information. Mental health experts felt mainly personal stress, then general and working stress. They identified also pathological effect of COVID-19 pandemic on the mental status of their patients, especially with anxiety and affective disorders and advantages of use of telemedicine.

Conclusion: Psychosocial support in Slovakia was newly organized in COVID-19 pandemic for medical professionals, patients and other inhabitants under high stress within a very short time. This unexpected situation has revealed to Slovakia the need for reform of the mental healthcare system.

Key words: COVID-19 pandemic, health-care management, mental health, psychiatry, Slovakia

INTRODUCTION

Slovakia is a Central European state with a current population of about 5.7 million with 53.7% of the inhabitants living in the urban settings. With a gross
domestic product (GDP) of $198 billion in 2019, it is classified as the high-income country.[4] Slovakia spends 2.4% of GDP for the direct and indirect costs of mental disorders. According to the National Statistical Office 2017, every 9th inhabitant living in Slovakia was diagnosed with mental disorders.[5] The most frequent diagnoses were affective and anxiety disorders. However, Brazinova et al.[6] in the statistical estimation explored the significant gap in mental health and social care needs of persons affected by the mental disorders in Slovakia. The main reason for this is the stigma of mental disorders. Despite the high burden, mental health is still not considered of the same importance as physical health.

In year 2018, 109 332 professionals (23.3% doctors and 37.7% nurses) were employed in the health-care sector. The experts involved in mental health care are psychiatrists, child psychiatrists, psychologists, psychotherapists, nurses, social workers, physiotherapists, and health workers without degree.[4] General practitioners have limited competence in the management of mental disorders. There were 48 psychiatric departments for adult patients with a total capacity of 3 268 beds (60/100,000 inhabitants) and six departments for children with 200 beds (20/100,000 inhabitants). All beds are used mainly for short-term acute admissions. Average admission time was 25.6 days for adults and 35.6 days for the children population. Totally, 43,971 admissions (80.7/10,000 inhabitants) with mental and behavioral disorders were recorded during the year, without significant change over the past 5 years. Daily psychiatric clinics had the capacity only for 504 adults and 14 children, across the country. An outpatient care consisted of 392 units with 294 psychiatrists (5.4/100,000 inhabitants). One outpatient psychiatrist realized 4 950 visits/year on average. Eighteen percent of patients were diagnosed for the first time in life. In total, 383,888 (704.3/10,000 inhabitants) patients with a psychiatric diagnosis were examined at the psychiatric outpatient departments. There were also 221 outpatient units of clinical psychology in the founding competence of the Ministry of Health of the Slovak Republic (MoH SR) (5.32 clinical psychologists/100,000 inhabitants), whereas the number of visits to one outpatient unit was 4 113/year on average.[5]

The COVID-19 pandemic was confirmed to have spread to Slovakia on March 6, 2020, with confirmation of the first positive case. Till date, <0.03% of the general population has been confirmed with SARS-CoV-2 positivity and overall lethality occurred in 1.8% of cases among all confirmed cases by the reverse transcription polymerase chain reaction. Shortly, after the confirmation of the first positive case, the Slovak government, as the first in Europe, adopted some of the strongest restrictions for the whole country. The aim of these preventative and emergency anti-epidemic strategies was to save the health and lives of the most vulnerable or high-risk groups of the population. The most effective strategies were closing all educational institutions, business offices, event venues, state borders, reduction of public transport schedule, only essential shops and facilities such as grocery stores remained open, mandatory 14 days state quarantine for everyone returning from abroad, and mandatory use of face masks.[6] The ban on the freedom of movement between the districts was declared for 4 days in the middle of April. These strong restrictions in the country became an effective strategy to prevent the spread of the SARS-CoV-2. It is well documented not only in COVID-19 pandemic that the lockdowns of the countries have been effective strategies saving lives and health of their inhabitants.[6,7] Since April 22, anti-epidemic restrictions have been lifted in Slovakia. The same day the peak with the highest numbers of active infections (n = 958) was announced in the country.

COVID-19 pandemic and mental health care in Slovakia
The Slovak government declared the state of emergency in the health-care system on March 16 with work mobilization for inpatient departments and extended on April 14 on the whole health-care system. The state of emergency expired on June 13.

Since the beginning, medical professionals across the country have been working under increasing pressure, anxiety, and fear, which have escalated quickly. While the rest of the country was dealing with closing institutions and shops, patients and their health-care workers (HCWs) immediately adopted different modes of operation. For the patient’s population at psychiatric departments, new rules were set such as prohibition of visits, significant reduction in therapeutic activities, and altered contact with staff due to protective equipment usage. One of the positive changes was permission to use the mobile phones for all the patients at psychiatric departments, which was prohibited in the country for patients with severe mental disorders admitted to the hospital at acute wards and criticised by Committee for the Prevention of Torture and Inhuman or Degrading Treatment of Punishment.[8] In addition, new competences of HCWs were linked with legal uncertainty in the medical practice. Psychiatric residents with limited practice in the emergency medicine were assigned to work night shifts in triage emergency rooms to sort suspected and nonsuspected COVID-19 patients coming to the hospitals. After targeted epidemiological history was taken and according to presenting complaints, the patient was then sent to the corresponding department. The suspected COVID-19 patients were admitted to COVID-19 dedicated departments with care provided by liaison specialists. The most important aspect of triage was reducing the risk of infection spreading. Negative aspects of this arrangement included the lack of staff, insufficient training of staff, medical supply shortage, and inappropriate premises for triage of the patients.
As navigation tool for psychiatrists to manage their practice during the current situation, according to the request of MoH SR Chief Expert for Psychiatry with her team prepared the guide with aim to minimize the risk of infection spreading among patients with mental disorders. It is up-dated regularly according to the current situation following the incidence of COVID-19 cases in the country.

Guides for mental health services in pandemic
In Slovakia, during COVID-19 pandemic, COVID-19 illness was considered as a priority diagnosis in the treatment of patients with mental disorders. If the inpatient care was necessary, patients diagnosed with the COVID-19 and mental disorder comorbidity were admitted to infectious disease departments. The psychiatric treatment was recommended and provided by liaison psychiatry services through telemedicine approach. As the first step through phone-call or video-conference option, following the second step by personal examination in the patient’s room. Patients diagnosed with the COVID-19 and mental disorder, who did not require inpatient psychiatric treatment, were preferably treated in their natural environment with telemedicine (telepsychiatry and telepsychotherapy) use. The patients with acute mental disorders and suspected or confirmed SARS-CoV-2 performing severe behavioral disturbances were admitted at newly established so-called mini-infectious units of psychiatric departments. For suspected COVID-19 patients with mental disorders the general rule was to prioritize testing for SARS-CoV-2 infection to reduce time for access to adequate treatment. Patients with severe mental disorders were evaluated as vulnerable group and for time of community spreading of COVID-19 government plan to prepare for them the establishment of mental health mobile teams. This approach was considered as an optimal option to provide intervention in their safe natural environment.

The state-owned health insurance company General Health Insurance (GHI), which is the one with the highest numbers of insured patients/clients in the country, provided data about the personal visits of patients in outpatient’s facilities in the second half of March 2020. In general, GHI noticed about a 50% reduction of patient’s visits in comparison to the previous year. However, psychiatry services were reduced only by 23% and provided care also by the telemedicine.[9]

In the first half of June 2020, the first peak of COVID-19 pandemic in Slovakia has decreased rapidly. It has also influenced the health-care system. In the country, infectious departments with allocated beds for potential patients are being reduced. Approach to patients with suspected or confirmed comorbidity of mental disorder and SARS-CoV-2 infection with the clinical presentation from asymptomatic to mild symptomatic was changed to direct admissions to mini-infectious units of psychiatric departments.

Psychosocial support in Slovakia
Grover et al. emphasize that the impact of COVID-19 pandemic extends beyond the physical illness, because the numbers of people affected by the fear of COVID easily surpass those infected with it.[10] During the state of emergency involving the whole health-care system, the HCWs suffered from stress related to COVID-19 spreading. To navigate this situation, the MoH SR has established the National Crisis Clinical Team as a platform where multidisciplinary professional experts have worked together. At this platform, psychosocial support groups content with professional volunteers and mental health experts working, especially in hospitals and long-term care facilities were established. The online training of stabilization and relaxation techniques was conducted. Within 2 weeks, this team of psychosocial trainees was working as full-time 24/7 support for the HCWs and the local teams were established all over the country as the first-level support intervention. The second level contains a nonstop phone hotline. A mobile psychosocial team trained in trauma and crisis intervention was functioning on the third level. Special consultations were offered by psychotherapists, social workers, and other specialists including spiritual specialists trained in crisis intervention.

The psychosocial support was accessible also for all patients and other affected inhabitants under coordination of Chief Expert of MoH SR for Psychology. It was carried out by psychologists and outpatient psychiatrists, mainly on the basis of tele-interventions. Focus has been given also on prevention of stigma and stress management of patients diagnosed with COVID-19, their family members, people in quarantine, and child population.

Survey of Slovak psychiatric association
The aim of the study conducted by the authors was to evaluate the psychosocial impact of COVID-19 pandemic on mental health experts and their clinical practice in Slovakia. This study is a multicentric survey conducted on an online platform managed by Slovak psychiatric association (SPA).

MATERIALS AND METHODS
The authors created their own online 10-items survey questionnaire conducted under the patronage of the SPA

| Table 1: Professional characteristics of mental health experts in the survey |
|-------------------------------------------------------------|
| Profession          | n (%)          |
| Outpatient psychiatrist | 60 (38.2)  |
| Inpatient psychiatrist  | 41 (26.4)  |
| Psychologist            | 32 (20.4)  |
| Child psychiatrist      | 9 (5.7)   |
| Psychotherapists        | 9 (5.7)   |
| Other                    | 4 (2.5)   |
| Psychiatrist in daily clinic | 2 (1.3) |
| Total                    | 157 (100) |
[Table 1]. A web link was published on the website of SPA and distributed as a newsletter to the members (n = 479). Because of the web-based snowball sampling strategy, the exact target population and response rate could not be calculated. The survey questionnaire was formulated with the aim of gathering information concerning perception of stress by mental health experts and their patients/clients, stigma consequences and experience with telepsychiatry during in COVID-19 pandemic defined as the COVID-19 crisis, since the first confirmed case till the filling out the questionnaire. The survey was approved by the Board of SPA.

Statistical analysis
All data were processed in statistical programs SPSS Statistics Version 26.0 (Armonk, NY, USA) and MS Excel. The analyses were performed by the use of methods for the univariate and bivariate analysis. Relationships among selected parameters were assessed using the contingency coefficient Cramer’s V and statistical significance. The overall level of statistical significance was defined as P < 0.05, eventually 0.1% (P = 0.001).

RESULTS

In the period of May 31 until June 15, a total of 157 mental health experts submitted their responses for the survey questionnaire. Professional characteristics of respondents are summarised in Table 1. Women (79%) participated mainly in the survey. The most frequent occupation categories were 38.2% outpatient psychiatrists, 26.1% inpatient psychiatrists, and 20.4% psychologists.

Survey questions and results are summarized in Table 2. As a whole group, 67.6% mental health experts felt symptoms of stress during the peak of Slovak COVID-19 crisis in comparison to regular situations. 26.8% were stressed strongly. Only 7% did not feel more stress than usual. In the opposite relation, during the time of survey 69.8% respondents did not feel more stress than usual and 37.5% felt symptoms of stress. Differences in the stress symptoms feeling during the peak of COVID-19 crisis as well as in time of filling survey between outpatient psychiatrists and inpatient psychiatrists (Cramer V = 0.227, P = 0.266; Cramer V = 0.124, P = 0.818); outpatient psychiatrists and psychologists (Cramer V = 0.295, P = 0.092; Cramer V = 0.065, P = 0.983) and inpatient psychiatrists and psychologists (Cramer V = 0.297, P = 0.168; Cramer V = 0.101, 0.945) were not statistically significant.

As regard to the most stressful period, 53.5% respondents identified the situation in March, just after the declaring the state of emergency by the Slovak government. 26.1% of respondents reported as the most stressful period in April, during the culmination of anti-epidemic restrictions. However, 13.4% of the whole sample did not feel stress anytime between March 6 and June. The main sources of

Table 2: Survey questions and results

| Question                                                                 | %     |
|-------------------------------------------------------------------------|-------|
| Did you feel symptoms of stress during the peak of COVID-19 crisis in comparison to regular situations? |       |
| Strongly agree                                                          | 26.8  |
| Agree                                                                   | 40.8  |
| Neutral                                                                 | 19.7  |
| Disagree                                                                | 7.0   |
| Strongly disagree                                                       | 5.7   |
| Do you feel the symptoms of stress due to COVID-19 crisis in comparison to regular situations? |       |
| Strongly agree                                                          | 5.7   |
| Agree                                                                   | 31.8  |
| Neutral                                                                 | 2.5   |
| Disagree                                                                | 40.1  |
| Strongly disagree                                                       | 19.7  |
| When did you feel stressed by COVID-19 crisis the most?                  |       |
| Before March 6th (first case of COVID-19 in Slovakia)                    | 3.8   |
| In March, after declaring the state of emergency                         | 53.5  |
| In April, during culmination of anti-epidemic restrictions              | 26.1  |
| In May, during the relaxation of anti-epidemic restrictions              | 3.2   |
| Without feeling stress                                                  | 13.4  |
| What did stress you out the most?                                       |       |
| Statistical data and prognoses                                          | 38.2  |
| Press conferences and information presented by politicians               | 26.8  |
| Other situations                                                        | 26.8  |
| Information from MoH SR                                                  | 3.8   |
| Information from the permanent crisis staff                              | 2.5   |
| Information from the central crisis staff                                | 1.9   |
| Which kind of stress did you feel the most in the time when you felt the most stressed? |       |
| General stress                                                          | 22.3  |
| Personal stress regarding family and close people                       | 25.5  |
| Personal stress regarding own health and personal life                   | 4.5   |
| Personal stress regarding money                                          | 3.8   |
| Working stress due to legal uncertainty in providing medical care by professionals, missing rules |       |
| Working stress due to different duties at working place, missing knowledge, and/or different competencies |       |
| Without any reason for higher stress                                    | 9.6   |
| Did you observe the pathological effect of COVID-19 crisis on the mental status of your patients? |       |
| Especially in patients with anxiety and affective disorders             | 54.1  |
| Especially in patients with addictions                                  | 3.8   |
| Especially in patients with psychotic disorders                         | 1.9   |
| Especially in patients with organic mental disorders                    | 1.3   |
| Equally in all patients                                                 | 25.5  |
| No observed                                                             | 13.4  |
| Did you observe decapensation of the mental state of your stabilized patients/clients in comparison to common situations in different frequencies? |       |
| Increased >25%                                                          | 5.7   |
| Increased <25%                                                          | 55.4  |
| Without change                                                          | 32.5  |
| Decreased                                                              | 6.4   |
| Do you perceive COVID-19 as a stigma?                                   |       |
| Yes                                                                     | 42.0  |
| No                                                                     | 40.8  |
| I don’t know                                                            | 17.2  |
| Do you think that telepsychiatry-telepsychology-telepsychotherapy are adequate forms for diagnostic therapeutic interventions in regular daily clinical practice also out of pandemic? |       |
| Yes                                                                     | 17.8  |
| Yes, but in limited form                                                | 51.6  |
| No                                                                      | 26.8  |
| I don’t know                                                            | 3.8   |
stress for 38.2% respondents were statistical data and prognoses, equally for 26.8% of them information presented at press conferences and other (non-defined) sources. Mental health experts felt mainly personal stress regarding family and close people (25.5%), general stress (22.3%), working stress due to different duties at working place/missing law standards (21.0%), and working stress due to missing knowledge and/or different competencies (13.4%). 9.6% respondents did not feel any reason for higher stress. Outpatient psychiatrists felt the highest stress (35.0%) during the Covid-19 pandemic due to fears about legal uncertainty in their profession, while inpatient psychiatrists (29.3%) and psychologists (34.4%) felt mainly personal stress regarding family and close people.

The pathological effect of COVID-19 pandemic on the mental status of their patients observed in 86.6% respondents. The most frequent effect was in patients with anxiety and affective disorders – identified by 54.1% respondents. 25.5% of mental health experts recognized the same pathological effect of COVID-19 pandemic in patients within different diagnostic categories. However, 13.4% respondents did not observe any negative effect. Moreover, an increased number of decompensations of mental state in previously stabilised patients/clients during COVID-19 crisis noticed by 61.1% respondents. Only 5.7% of them estimated more than 25% decompensations. Surprisingly, 6.4% respondents reported decreased number of mental state decompensations of their patients. The incidence of decompensation increased significantly especially in patients/clients visiting the psychotherapists, slightly increased in those who visited outpatient psychiatrists and decreased mainly in practice of child psychiatrists (Cramer \( V = 0.248, P = 0.05 \)). Psychotherapists also reported a group of clients whose mental state stayed stable in spite of stress. In Slovakia, almost equal parts of mental health experts in the survey considered and didn't consider COVID-19 as a stigma (42.0% vs. 40.8%).

During the COVID-19 crisis Slovak mental health experts used telemedicine (telepsychiatry-telepsychology-telepsychotherapy) as an everyday working tool for the first time. 69.4% of them have considered it as an adequate form for diagnostics and therapy in the common clinical practice. However, 51.6% want to use it at a limited level with the defined guidelines also in future. This method is considered to be suitable in the routine practice on a statistically significant level by psychotherapists and psychologists (Cramer \( V = 0.332, P < 0.001 \)). Approximately, quarter of the sample refuses to use telemedicine beyond the pandemics.

**DISCUSSION**

In Slovakia, at the beginning of COVID-19 pandemic the country prepared facilities for patients with suspected and confirmed diagnosis of novel coronavirus infection. Within time, the approach changed to protect and provide care mainly to the noninfected population, because the number of patients with diagnosed COVID-19 disease stayed on low levels. However, the results of the presented study documented that mental health experts experienced more stress and fear than usual, which negatively influenced their well-being and COVID-19 pandemic also affected their professional practice. Slovak experience has been influenced also due to very strong anti-epidemic restrictions in the country, which were similar to experiences in several other countries. The authors underlined that due to lockdown in COVID-19 pandemic more than two-fifths of the people are suffering common mental disorders. These findings suggest that mental health support and services should be available to everyone in the society during the pandemic situation.

Gender ratio of respondents revealed a higher proportion of women. This fact is consistent with the general situation in Slovak health-care system where 78% women and 22% men work.

Most respondents felt stress especially during the culmination of the local COVID-19 crisis. Interestingly, there were no differences between professions in feeling stress, but kinds of stress differed. Outpatient psychiatrists and psychologists felt mainly personal stress and psychiatrists in hospitals were mostly influenced due to working stress. Li et al. also refer a high prevalence of psychological outcomes among health-care professionals during the COVID-19 outbreak. They highlight bi-directional association between the prevalence of psychological outcomes and physical symptoms which could significantly reduce their work performance and mimic symptoms of COVID-19. As protective factors, the authors recommend the psychological support and interventions as well as medical training of personnel. Moreover, Greenberg et al. highlight that once the crisis begins to recede, staff must be actively monitored, supported, and where necessary, provided with evidence-based treatments. Hence, the establishment of psychosocial support groups for medical professionals and other nonmedical staff in every hospital was a very important step in the right direction.

In the present survey, significant negative factors were reported around the time of the declaration of the state of emergency and the culmination of anti-epidemic restrictions. Negative influence was related to the available statistical data and prognoses of COVID 19 disease as well as information overload presented in the social media. Individual freedom and access to the verified sources of information are an important part of human well-being especially in the situations of uncertainties like this COVID-19 pandemic. Minimization of the detrimental impact of “fake news” in the social media must be a part of preventative
strategies. Ho et al.\textsuperscript{14} emphasize that the higher levels of satisfaction with information in pandemic have been found to correlate with lower psychological distress in individuals. The results of our survey demonstrated that the situation in Slovakia calmed down after the relaxation of restrictions in Slovakia, when the 14-day moving median declined to zero. Panagioti et al.\textsuperscript{15} warns that pandemic burnout of health-care professionals is developing, and it may jeopardize patient care. On the other hand, Brooks et al.\textsuperscript{16} provides information that experiencing a disaster may have positive impact and results in posttraumatic growth at both a personal and professional level. Only the future will show how Slovakia was affected by COVID-19 pandemic. However, it would be expected that supportive strategies such as psychosocial support groups help to cause a positive impact.

The pathological effect of COVID-19 crisis on the mental status of patients/clients and higher rate of mental disorders decompensations were observed in the practice of the survey respondents. The most sensitive was patients with anxiety and affective disorders, and they visited preferably psychotherapists or outpatient psychiatrists. Ho et al. suggest identifying vulnerable groups in the community, who are at the high risk of psychological morbidities and target them for early psychological interventions.\textsuperscript{14} Regular screening for stress, anxiety, and depression, setting up multidisciplinary mental health teams for dealing with these mental health issues and providing psychological support to both patients and HCWs is advised.\textsuperscript{17,18} In Slovakia, psychosocial support services were established for medical professionals, patients, and other inhabitants living under high stress within a very short time during COVID-19 pandemic. Gavin et al.\textsuperscript{19} suggest psychological support based on the models of adaptation and resilience and emphasize the application of interventions before the pandemic as a means of enhancing resilience and pandemic preparedness, if feasible and possible.

The fact that COVID-19 is perceived by many mental health experts as stigma is dangerous,\textsuperscript{20-23} Stigma can undermine social cohesion and generate social isolation of individuals which multiply the negative impact of COVID-19 on mental health. The issue for all HCWs is to change the attitude to patients who are suspected or diagnosed with COVID-19. However, it could only be possible if their own anxiety and tension are manageable.

In the field of mental health in Slovakia, effective public mental health (PMH) and community-based care don’t exist. Access to mental health-care system is limited. Situation is going to be more serious, because many of the psychosocial and mental health consequences of the pandemic will have to be addressed by mental health experts in the months to come. Most probably, the system as a reaction to extreme stressors will face an increase of mental health problems.\textsuperscript{26} Effective PMH interventions could prevent mental disorders and promote mental well-being at primary, secondary, and tertiary levels in the whole population. It is well-known that the subsequent increased coverage of PMH interventions results in a broad set of improved outcomes and associated economic benefits.\textsuperscript{27} However, in Slovakia, PMH is not as effective as it could be, during the COVID-19 pandemic. Mental health has become a more important public and political issue priority during this time. In April 2020, the newly formed Slovak government approved a Programme Statement which declared a reform of mental health care and an establishment of Government Council for Mental Health based on the high priority of mental health across all resorts and to coordinate the process of reform.

Finally, positive and negative factors which influenced the situation in the country during the COVID-19 pandemic in Slovakia are summarized in Table 3.

**CONCLUSION**

Despite the early pessimistic prediction models of Health Policy Institute of MoH SR which estimated half of million patients, 2 weeks later, the number was reduced to 170,000 and on April 24 only to 5,500 cases, nowadays reality by June 26 is totally 1,643 patients with SARS-CoV-2 confirmed infection in Slovakia. Until the date of paper submission, there was no community spread of SARS-CoV-2 in Slovakia. Reduction of coronavirus-related restrictions in the country is being taken into action with the requirement of the health-care system to stay alert.

What could be expected in the following weeks? Is it mainly an indirect prolonged impact of COVID-19 pandemic on mental health due to incoming economic crisis, psychological distress, and physical isolation or the second wave of infection with the direct consequences of this potentially neurotropic virus?\textsuperscript{28-30} Everything is possible. As very important in this unclear situation could be the fact that also new gained
experiences contribute to start the process of reform of mental health care toward the development of effective PMH and community-based care. Navigating the negative short-term impacts from COVID-19 disaster, perhaps Slovakia can transform into longer-term positive changes through strategies emerged during COVID-19 pandemics.

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There are no conflicts of interest.

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