

The Link between Organizational Culture and Mental Health of Employees in Higher Education Institutions during COVID-19

Sanja Pavlova

School of Business Economics and Management, University American College Skopje, North Macedonia

Received May 16, 2023; Revised August 20, 2023; Accepted September 13, 2023

Cite This Paper in the Following Citation Styles

(a): [1] Sanja Pavlova, "The Link between Organizational Culture and Mental Health of Employees in Higher Education Institutions during COVID-19," *Universal Journal of Management*, Vol. 11, No. 3, pp. 64 - 75, 2023. DOI: 10.13189/ujm.2023.110302.

(b): Sanja Pavlova (2023). *The Link between Organizational Culture and Mental Health of Employees in Higher Education Institutions during COVID-19*. *Universal Journal of Management*, 11(3), 64 - 75. DOI: 10.13189/ujm.2023.110302.

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Abstract The main purpose of this paper is to show the relationship between mental health and its impact on the organizational culture of employees in higher education institutions in the Republic of North Macedonia. The focus of the research interest is placed specifically on the impact that the COVID-19 pandemic had on these employees and the way they coped, that is, how they reacted when it comes to the organization, in which they work. This study uses the Vox Organizationis instrument to measure organizational culture and the 2-item Assessment of Mental Disorders in Primary Care to gain insights into the degree of depression of employees of higher education institutions in the Republic of North Macedonia, caused by the COVID-19 pandemic, as well as whether they have a suicidal tendency. The questionnaire was distributed to private and state higher education institutions in the Republic of North Macedonia and was answered by 97 respondents, whose answers were processed using the SPSS program. All individuals face various conditions every day that are caused by numerous factors. Humans possess several types of well-being. These are: emotional, psychological, and social, which make up mental health. This paper suggests that having strong mental health does not mean that you never go through bad times or have emotional problems. We all go through disappointments, losses, and changes. This is proven through the research itself, which changed the mental health of employees in Macedonian higher education institutions, and this had an impact on their

organizational culture.

Keywords Organizational Culture, Mental Health, COVID-19, Pandemic, Well-Being

1. Introduction

We can say with certainty that the COVID-19 pandemic is the most current topic of modern life, both in the last 3 years and today. This health crisis can be associated with a variety of problems and sectors.

Every organization, regardless of its activity, has faced consequences of enormous proportions. The pandemic appeared very unexpectedly and attacked literally all spheres of life, while one of the most affected sectors was precisely the education sector [1].

This paper is aimed at higher education institutions as some of the most affected in the world. When it comes to the higher education sector, the COVID-19 pandemic has had a constant impact on the working process, daily life, well-being, and the future of living [2]. The traditional way of functioning of higher education institutions, which we were all used to, was changed completely, through the closing of classrooms, and all this was caused by the unprecedented speed of the COVID-19 pandemic [3]. When it comes to organizational culture, it is assumed that

higher education institutions possess a high degree of intellectuality, which is reflected through the implementation of appropriate policies and strategies, through which they will more easily adapt to unpredictable crises, such as the COVID-19 pandemic [4].

The disorder of mental health, which is still a taboo topic today, was even more pronounced during the pandemic itself. With the emergence of the COVID-19 pandemic, higher education institutions have faced numerous psychological disorders, such as increased psychological pressure caused by feelings of insecurity, uncertainty, as well as high chances of health disorders [5]. For this purpose, higher education institutions were forced to cultivate such an organizational culture, which would provide its employees with the correct guidelines for work, for the purpose of preserving the quality of the educational system, but also for the purpose of preserving the mental and psychological stability of all members of the organization.

When it comes to management and operation, there are almost always numerous challenges that go hand in hand with controversies, and uncertainties, where a quick reaction is necessary that will bring success, both for all organizations and for higher education institutions [6]. It is necessary in every organization to continuously treat the employees and their behavior, to get a clear picture of the situations that occur in it, as well as their causes [7].

Mental health is closely related to our attitudes, thoughts, feelings, and actions. Childhood, adolescence, adulthood, and old age bring their own marks, and mental health is equally important in each of these life stages. It can be used to measure the degree of coping with stress, the relationships we have with others, as well as the choices we make, and based on that, the decisions we make.

Mental health problems are common in today's dynamic lifestyle. Some factors that cause this type of problem are life experiences, that is, difficulties surviving, hereditary problems with mental health, as well as factors of a biological nature. People who face this type of problem have pronounced symptoms in their way of thinking, changes in behavior and changes in mood.

Working towards better mental health is an essential component of leading a happy, productive life. Having good mental health does not necessarily mean that one is happy all the time, but that one applies tools that help one change one's way of thinking and learn to walk through difficult times. Bad things will always happen in the world, but learning to be mindful, discerning, and resourceful can help us navigate through them more easily.

2. Literature Review

2.1. Definitions of Mental Health

Mental health is defined not only in terms of the absence of a mental disorder but is a state of well-being, in which

everyone realizes his own potential, can cope with the normal stresses of life, can work productively and is able to contribute fruitfully to his community [8]. People who are emotionally and mentally resilient have the tools to handle difficult situations and maintain a positive attitude. They remain focused, flexible, and productive, in bad times as well as in good times. Their resilience also makes them less afraid of new experiences or an uncertain future. Even when they don't immediately know how the problem will be solved, they hope that eventually a solution will be found.

If we feel that any of these areas of our lives are suffering, we may have problems with our mental health. We won't hesitate to go to the doctor if we have a broken leg or some physical pain, so we shouldn't hesitate to ask for help if we feel something is wrong when our well-being is in question.

There are a lot of headlines and stories about mental health these days, but what exactly does it mean? The World Health Organization states that mental health is "an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in" [9].

Mental health affects:

- How we act
- How we think
- How we feel

The feeling of happiness and dominance in society represents a positive aspect that reflects mental health. It is also important to note that anger, unhappiness, and sadness are characteristics of individuals who have good mental health [10]. The nature of well-being is a matter of ethical and personal consideration and as such admits of great diversity [8].

Different levels of distress and severity in people lead to different social and clinical outcomes. This represents a complex continuum that occurs in different forms depending on the person. Mental health means much more than simply not having any mental disorders.

It is important to remember that there is a big difference between experiencing problems with your mental health and having a psychological disorder. Almost everyone feels some level of stress or anxiety, but those with mental illness experience symptoms that greatly affect their ability to function in their daily lives. While anyone can benefit from working to improve their mental health, people with disorders should seek specialized treatment. Some examples of psychological disorders are described below. Mental health disorders affect a large proportion of people around the world.

A study from 2013, estimated that 1 in 5 people meet criteria for a mental health disorder in the past month and 30% meet criteria in their lifetime [11]. However, it is important to consider the anxiety that many people have experienced as part of the COVID-19 pandemic. With that in mind, a more recent study from 2021 found that the overall prevalence of mental health problems is higher now

than before the start of the pandemic [12].

Mental and physical health are equally important components of overall health. For example, depression increases the risk for many types of physical health problems, especially long-term conditions such as diabetes, heart disease, and stroke. Similarly, the presence of chronic conditions can increase the risk for mental illness.

Mental health conditions can lead to low levels of well-being in people who experience them. Mental disorders, psycho-social disabilities, conditions characterized by anxiety, and impaired daily functioning that sometimes led to the risk of self-harm are part of mental health conditions.

Rather than a sense of complete well-being, it is necessary for people to develop the ability to adapt and build a sense of complete self-management in the face of challenges, all of which derive from aspects of mental health [13]. Cognitive, emotional, social abilities and behavior are the basic elements that should be treated in the process of diagnosing mental disorders [14]. The time that individuals spend experiencing symptoms or risk factors of mental disorders can be reduced through appropriate prevention, as well as reducing the incidence, prevalence, and recurrence of disorders, among individuals experiencing the same, their loved ones, and society [15]. The physical fitness of a person is much easier to define than above-average mental health, as well as the importance of recognizing this fact [16]. It is important to remember that a person's mental health can change over time, depending on many factors. When the demands placed on a person exceed their resources and coping abilities, their mental health can be affected. For example, if someone works long hours, cares for a relative, or has economic difficulties, they may experience poor mental health. Anyone can suffer from mental or emotional health problems and during our lives most of us will. This year alone, around one in five of us will suffer from a diagnosable mental disorder. However, despite how common mental health problems are, many of us make no effort to improve our situation. The negative implications that have been caused by the pandemic have led to a series of mental consequences, which are related to anxiety, bad behavior, and they often go against the recommendations given by government authorities [17]. We ignore the emotional messages that tell us something is wrong and try to make it worse by distracting ourselves or self-medicating with alcohol, drugs, or self-destructive behaviors. We hide our problems in the hope that others will not notice. Hopefully, our situation will eventually improve on its own. Or we simply give up, telling ourselves that this is "just the way we are". In some societies, unfortunately, mental, and emotional issues are considered less legitimate than physical issues. They are seen as a sign of weakness or guilt.

2.2. Measuring Mental Health

The pandemic has led to a sense of fear of contagion, which has encouraged people to be worried and approach

social isolation [18]. The negative changes in mental health occurred due to lack of continuous access to services to support the same, increased use of technology, reduced level of physical activity due to the complete lockdown, etc [19].

Measuring mental health has often been considered more difficult than measuring other types of health. This is partly due to the limited availability of objective biological tests and variable diagnostic guidelines in psychiatry, along with cross-cultural differences in mental health experience and complex social and psychological confounding factors. However, it is possible and desirable to measure mental health outcomes in built environment research. Thus, the impact of urban planning and design on mental health can be demonstrated and understood.

Measuring mental health is essential to understand population health status and trends over time, and to measure the effectiveness of interventions to improve it. Measuring mental health and mental well-being brings with it several challenges not encountered in other areas of public health practice.

A comprehensive review of the range of measurement tools currently used in the literature to evaluate preventive mental health interventions can serve as a valuable resource for researchers, practitioners, and policy makers and represents an initial step toward more standardized measurement across prevention projects [20]. There is a lack of evaluations of mental health measurement tools [21].

It is possible to have negative implications on mental health, such as depressive and suicidal symptoms, somatic disorders, mood changes through the prism of depression, and anxiety that contributes to people reaching for alcohol and drugs, while all the listed conditions are caused by economic crises that bring with them reduced health care [22]. Societies together with their health systems have faced numerous hitherto unknown challenges presented by the COVID-19 pandemic [23]. In addition to economic crises, health crises can also be huge causes of mental disorders. Some pandemics such as SARS, Ebola or COVID-19 that occur at the world level can be defined as triggers of negative conditions, such as stress [24].

A key role during the COVID-19 pandemic and the success of organizations has an entrepreneurial culture that can provide an appropriate way of dealing with the fear and stress caused by the pandemic itself [24]. Concise recording of appropriate indicators that accurately determine the complexity of the disease is necessary, and this process is necessary for accurate measurement and improvement of the mental health of the population [25].

Different indicators are used around the world when it comes to measuring mental health. A few examples of indicators used in Canada are self-reported utilization of services or mental disorders, because of surveys conducted by national surveys, rates of use of medical resources such as psychiatrists or hospital beds per capita, but also the rate of committed suicides, hospitalizations based on a hospital

stay database [25].

Physical health, hope and hopelessness, autonomy, ability to self-perceive, activity, achieving relationships and a sense of belonging, as well as well-being, are seven key domains that are crucial to determining the degree of quality of individuals facing mental health problems [26]. The most vulnerable category when it comes to mental health knowledge is young people who have a high-risk rate of developing mental disorders and therefore tools are necessary that will be developed, evaluated, and validated to improve mental health [21].

2.3. Mental Health of Higher Education Institutions during the Pandemic COVID-19

When it comes to the quality of a country's higher education, it is necessary to emphasize the importance of mental well-being [27]. A process of discrimination and imposition of stereotypes has been observed when speaking of mental health, especially in academic settings [28].

Higher education's response to the COVID-19 pandemic has largely come from executive leaders. Their different attitudes and viewpoints on this health crisis will leave a deep mark on the higher education institutions they represent in the years to come. It is of fundamental importance that higher education institutions ensure the preservation of the mental health of both their employees and students.

Employees of higher education institutions are the first and main figures who provide support to students, managing the uncertainty arising from these unknown times. Their support is one of the most effective ways that higher education institutions themselves can support students.

We must mention that it is extremely important to impose positive behavior that will contribute to the health and well-being of all participants in the processes that take place within higher education institutions. Many try to maintain a sense of normalcy despite experiencing their own insecurities, fears, and anxieties. They also adapt quickly to new ways of doing business, establishing work-life balance, and addressing the new and different issues of academic and student life.

To help alleviate these stresses, leaders may also want to consider creating a virtual community within higher education institutions, making room for a "new normal." Such virtual communities can provide timely information and the opportunity to share ideas and strategies, as well as more easily overcome the uncertainty, disappointment and worries caused by the COVID-19 pandemic.

Higher education institutions must take care of the mental health of their employees, and all this should be part of the strategic plan that every institution must undoubtedly build. Supporting staff mental health can directly impact the student experience. Some higher education institutions, as an activity to support mental health in pandemic

conditions, hired mentorships and counseling centers [29].

Mental health needs assessment is a relatively inexpensive way to increase the effectiveness and efficiency of programs and services within and outside higher education institutions, especially now that they are introducing new resources. In conditions where there is no high level of stress within a higher education environment, and it is followed by satisfaction, the results of mental well-being are inevitable [30].

3. Methodology

In this paper, quantitative methods were used to observe situations and events involving employees (academic and administrative staff) of private and state higher education institutions in the Republic of North Macedonia, especially during the COVID-19 pandemic. The research was conducted in the months of March and April 2022.

The Republic of North Macedonia is a small country that does not have many higher education institutions. The main reason that is the limitation for the scope of the sample in the research is precisely this.

The questionnaire was distributed electronically, but unfortunately, there was very little response. For this purpose, it was decided to distribute it manually to the respondents, where a total number of 97 respondents was collected. That is why it is very likely that this research does not show a complete picture of the higher education system in the Republic of North Macedonia, in relation to the researched variables.

Within this research, the instruments Vox Organizationis and 2-item Assessment of Mental Disorders in Primary Care were used. The Vox Organizationis instrument refers to the measurement of the congruence between the organizational culture or the values of the employees, the leadership style, or the values of the leader, as well as the formal part of an organization [31]. To examine depression and suicidal tendencies, the 2-item Assessment of Mental Disorders in Primary Care instrument was used in the paper [32].

The research part of the paper helps us to develop and understand in more detail the hypothesis that says that the COVID-19 pandemic affected the change of work, organizational culture, and mental health of employees of higher education institutions in the Republic of North Macedonia. That is, it reviews and analyzes the connection between the organizational culture and the mental health of employees of the higher education institutions in the Republic of North in times of health crisis.

4. Results and Discussion

Within the framework of Table 1, the relationship between organizational culture and mental health was measured in relation to the gender of the respondents.

Hence, we can see that when it comes to leadership style for males, we have a score of 62.9153 (M=62.9153), while for females the score is 62.1316 (M=62.1316). Regarding whether the organization in which they work has a tendency towards innovation and risk-taking, men report with 25.2881, against women (M=25.1842). Finally, mental health gives us data with a slightly more visible difference, i.e., men have a slightly higher score

(M=91.2712), while the amount of the female gender is 89.8421.

In Table 2, with the help of T test, it is calculated whether there are differences between male and female respondents in relation to the measured variables. As can be seen, there are no significant statistical differences between the genders.

Table 1. Measuring the link between organizational culture and mental health in relation to respondents' gender

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Democratic/ Autocratic organization	Male	59	62.9153	6.35797	.82774
	Female	38	62.1316	8.27948	1.34311
Innovativeness and Risk-Taking Orientation	Male	59	25.2881	2.77334	.36106
	Female	38	25.1842	3.73338	.60563
Mental health	Male	59	91.2712	9.64156	1.25522
	Female	38	89.8421	12.15558	1.97190

Table 2. Measuring the link between organizational culture and mental health in relation to the gender of the respondents using a T test

		F	Sig.	t	df	Sig. (2-tailed)
Democratic/ Autocratic organization	Equal variances assumed	1.056	.307	.526	95	.600
	Equal variances not assumed			.497	64.507	.621
Innovativeness and Risk-Taking Orientation	Equal variances assumed	.346	.558	.157	95	.876
	Equal variances not assumed			.147	62.905	.883
Mental health	Equal variances assumed	1.527	.220	.643	95	.522
	Equal variances not assumed			.611	66.133	.543

Table 3. Measuring the link between organizational culture and mental health in relation to whether respondents have children

Group Statistics					
	Children	N	Mean	Std. Deviation	Std. Error Mean
Democratic/ Autocratic organization	yes	54	63.3148	6.33297	.86181
	no	43	61.7209	8.03067	1.22467
Innovativeness and Risk-Taking Orientation	yes	54	25.3889	2.75692	.37517
	no	43	25.0698	3.64101	.55525
Mental health	yes	54	91.9630	9.63673	1.31139
	no	43	89.1395	11.74446	1.79101

Table 3 shows us that when it comes to leadership style and mental health there are certain statistical differences in relation to whether the respondents have children or not. Specifically, for the leadership style, the advantage goes to those who have children (M=63.3148), and those who do not have a score of 61.7209. Mental health is expressed with a score of 91.9630 by those who have children, while respondents who do not have children record a score of 89.1395. In the direction of innovation and orientation towards risks, there is no significant difference between respondents who have children (M=25.3889) and those

who do not have children (M=25.0698). In Table 4, through the T test, we can conclude that there are statistical differences between respondents who have and do not have children in relation to the measured variables. In Table 5, it is evident that the pandemic had the least impact on the change in the mental health of respondents aged between 30 and 39 years (M= 89.5116), while the age group from 18 to 29 years (M=98.0000) had the greatest impact. In the middle are the groups between 40 and 49 years old (M=90.9535) and 50 and 59 years old (M=93.1250).

Table 4. Measuring the relation between organizational culture and mental health in relation to whether respondents have children using a T test

		F	Sig.	t	df	Sig. (2-tailed)
Democratic/ Autocratic organization	Equal variances assumed	.948	.333	1.093	95	.277
	Equal variances not assumed			1.064	78.619	.290
Innovativeness and Risk-Taking Orientation	Equal variances assumed	.513	.475	.491	95	.624
	Equal variances not assumed			.476	76.473	.635
Mental health	Equal variances assumed	.975	.326	1.301	95	.196
	Equal variances not assumed			1.272	80.721	.207

Table 5. Measuring the impact of the pandemic on mental health in relation to the age of respondents

Mental health vs. Age		
Age	Mental health	
18-29	Mean	98.0000
	N	3
	Std. Deviation	3.46410
30-39	Mean	89.5116
	N	43
	Std. Deviation	9.34363
40-49	Mean	90.9535
	N	43
	Std. Deviation	12.11051
50-59	Mean	93.1250
	N	8
	Std. Deviation	10.58891
Total	Mean	90.7113
	N	97
	Std. Deviation	10.65849

The display in Table 6 clearly indicates that the greatest changes in terms of mental health were experienced by respondents who are Doctors of Science (M=94.4444), while there is no significant difference between respondents who have completed secondary education (M=91.5000) and those who are masters. (M= 91.0000). The highly educated respondents remain with the lowest score, i.e., M= 89.6857.

According to the data shown in Table 7, respondents who are in a relationship have the smallest changes in mental health (M=88.0000), and those who are married have a slightly higher score (M=89.4407). The difference between single (M=91.9000) and divorced (M=91.0000) is minor, while the biggest change occurred when it comes to the mental health of widowers (M=94.4444).

Table 6. Measuring the impact of the pandemic on mental health in relation to respondents' level of education

Mental health vs. Education		
Education		Mental health
secondary	Mean	91.5000
	N	4
	Std. Deviation	19.00000
higher	Mean	89.6857
	N	70
	Std. Deviation	10.43203
master	Mean	91.0000
	N	5
	Std. Deviation	10.39230
PhD	Mean	94.4444
	N	18
	Std. Deviation	9.56232
Total	Mean	90.7113
	N	97
	Std. Deviation	10.65849

Table 7. Measuring the impact of the pandemic on mental health in relation to respondents' marital status

Mental health vs. Marital status		
Marital status		Mental health
Single	Mean	91.9000
	N	10
	Std. Deviation	9.58529
In a relationship	Mean	88.0000
	N	3
	Std. Deviation	21.63331
Married	Mean	89.4407
	N	59
	Std. Deviation	10.74673
Divorced	Mean	91.0000
	N	5
	Std. Deviation	10.39230
Widow (er)	Mean	94.4444
	N	20
	Std. Deviation	9.56232
Total	Mean	90.7113
	N	97
	Std. Deviation	10.65849

Table 8. Measuring the impact of the pandemic on mental health in relation to respondents' work experience

Mental health vs. Work experience		
Work experience	Mental health	
Less than 1 year	Mean	97.0000
	N	2
	Std. Deviation	4.24264
1-3 years	Mean	88.9268
	N	41
	Std. Deviation	9.15530
4-6 years	Mean	90.7381
	N	42
	Std. Deviation	12.17366
7-10 years	Mean	93.1250
	N	8
	Std. Deviation	10.58891
Over 10 years	Mean	100.7500
	N	4
	Std. Deviation	2.21736
Total	Mean	90.7113
	N	97
	Std. Deviation	10.65849

When it comes to the work experience and mental health of the respondents, Table 8 shows us that the respondents who worked from 1 to 3 years survived the smallest changes (M=88.9268), and the highest score (M=100.7500) those with work experience over 10 years. Respondents with work experience from 4 to 6 years (M=90.7381) come in the middle, then those with experience from 7 to 10 years (M=93.1250) and respondents with experience of less than one year (M=97.0000).

Table 9 presents the changes brought about by the COVID-19 pandemic measured by universities. For this

purpose, we can sublimate that the greatest changes in mental health, with the highest score, were experienced by the employees of the university I (M= 96.7059). Four universities have a score lower than 90, namely: university F (M=85.8000), right after it is university E with a score M= 85.9000, followed by university B with a score of 87.0000 and D with a score of 87.5000. Universities that are in a lower place than university I are: H (M=90.1000), A (M=91.9000), C (M=92.3000) and university G with a score of 95.0000.

Table 9. Measuring the impact of the pandemic on mental health across universities

Mental health vs. University		
University		Mental health
A	Mean	91.9000
	N	10
	Std. Deviation	11.75160
B	Mean	87.0000
	N	10
	Std. Deviation	9.58007
C	Mean	92.3000
	N	10
	Std. Deviation	9.06826
D	Mean	87.5000
	N	10
	Std. Deviation	7.67753
E	Mean	85.9000
	N	10
	Std. Deviation	12.99957
F	Mean	85.8000
	N	10
	Std. Deviation	14.97999
G	Mean	95.0000
	N	10
	Std. Deviation	8.13770
H	Mean	90.1000
	N	10
	Std. Deviation	12.22429
I	Mean	96.7059
	N	17
	Std. Deviation	5.77456
Total	Mean	90.7113
	N	97
	Std. Deviation	10.65849

The following Tables show the frequencies for the four questions regarding mental health and the changes that the COVID-19 pandemic has caused among the employees of higher education institutions.

According to Table 10, it can be concluded that most respondents, i.e., 93.8% answered that they had no suicidal thoughts, while 6.2% thought about the possibility of taking their own life during the crisis caused by the COVID-19 pandemic. Table 11 shows us that during the pandemic, most respondents were not in a bad mood, in

depression or hopelessness in the last month, that is, 84.5%, while only 15.5% of the respondents were in a bad mood, depressed and hopeless. According to the data shown in Table 12, it is evident that most respondents, i.e., 57.7% of them answered that the pandemic did not affect their mental health, while 42.3% of them confirmed a change in their mental health caused by the pandemic. Table 13 clearly shows that at 6 of the universities, that is, at universities A, B, C, E, G, and I, one respondent wanted to take his own life, while at the rest of the universities no employees

Table 15. Data related to the question "Has the pandemic affected mental health?" by universities using Crosstab.

Crosstab											
Count		University									Total
		A	B	C	D	E	F	G	H	I	
Mental health	yes	6	5	0	6	5	4	8	7	0	41
	no	4	5	10	4	5	6	2	3	17	56
Total		10	10	10	10	10	10	10	10	17	97

The presentation in Table 15 gives a clear picture of the fact that only at two universities, namely C and I, there was not a single respondent who answered affirmatively to the question of whether the pandemic affected their mental health. At the rest of the universities, there were quite a few affirmative answers. That is, G counts 8 affirmative answers, H 7, A and D are distinguished by 6 affirmative answers, universities B and E with 5, and university F with 4.

5. Conclusions

The COVID-19 pandemic has led to numerous changes when it comes to mental health and its reflection on organizational culture.

Based on the research done in this paper, we can state that the teaching and administrative staff of the higher education institutions in the Republic of North Macedonia faced changes in their mental health, which left a mark on the way of working and caused implications on the organizational culture. Because of these reasons, certain phenomena in society, such as mental disorders, murders, suicides, etc., are perceived differently today and reacted to differently.

To avoid such unwanted occurrences, it is necessary for leaders, through proper structuring of the organizational culture within the organizations, to instill a positive working climate where employees will feel secure and will not resort to any negative actions towards themselves and other members of the organization. Within the state, it is necessary for the authorities to implement and guarantee quality mental health for the population by supporting it.

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