



HAL
open science

The Issue of Mental Health in the University Spheres and the Current Preponderant Challenges of Medical-Psychological Centers for Its Optimization

Svetlana Radtchenko-Draillard

► **To cite this version:**

Svetlana Radtchenko-Draillard. The Issue of Mental Health in the University Spheres and the Current Preponderant Challenges of Medical-Psychological Centers for Its Optimization. 2022. hal-03515651

HAL Id: hal-03515651

<https://hal.science/hal-03515651>

Preprint submitted on 6 Jan 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

The Issue of Mental Health in the University Spheres and the Current Preponderant Challenges of Medical-Psychological Centers for Its Optimization

Svetlana Radtchenko-Draillard

Abstract

After having carried out the analysis of numerous intercultural comparative studies and my theoretical-empirical studies on the state of mental health in the academic spheres of different countries, the purpose of my article is to describe the major causes and consequences of the mental health of students, teachers and researchers in recent years and in particular during the Covid 19 epidemic, then synthesize the main reflections on the effectiveness of medical-psychological centers for their optimization.

Keywords: mental health, depression, anxiety, stress, burn-out, coronavirus epidemic (Covid 19), medico-psychological care.

Introduction

The several studies and data carried out in several countries of the world highlight that in the academic environment the mental health of students and researchers is gradually deteriorating, which are especially aggravated in the period of the coronavirus epidemic (Covid 19). These available data show that this state of health of academics and students is correlated with their social and economic conditions, that they experience more difficulties in accessing care and are more exposed to stress, depression and anxiety especially when they combine studies, research and employment. Mental health status also varies according to the nationality of the students, with nationals of States with less efficient health systems logically being disadvantaged. Finally, students and academics often do not have direct access to university health services or are offered heterogeneous services. Hence the urgency to set up medicine and prevention centres and medico-psychological centres on university campuses. Consequently, created under the initiative and aegis of the presidents and rectorate of some American and Western European universities to help students in difficulty, medical-psychological centers have experienced a rapid intensification and have begun to develop well in the various universities around the world. Access to these services can take several forms: some develop their own health services within their universities, others are attached by convention to an Interuniversity Service for Preventive Medicine and Health Promotion, and still others offer additional services (post-graduation career guidance service, legal aid service, family planning centre, social and financial aid service, addiction support and prevention center, disability assistance service, sports medicine, paramedical and recreation service, campus management service and university catering service, etc.). On the other hand, most of these university centers also host doctorates, teachers, researchers and university staff and offer care and consultations adapted to their needs. The offer of medical-psychological health from these centres on university campuses is not intended to replace the provision of general care. It is generally limited to preventive actions and preventive medicine services whose missions are to raise awareness among the university population of the health behaviors to be adopted and to identify the

difficulties or health events occurring in these people in order to refer them in case of major problems to clinical medicine or the hospital. Given the importance of integrating these medico-psychological centers into university activity, the main objective of this article is to define their priorities in relation to the major causes of the fragility of the mental health of people in the university spheres determined in most studies and surveys carried out on this subject.

The disquieting findings of studies and surveys on the state of mental health of students, university teachers and researchers

Mental health in academic spheres (students, researcher, professors, and teachers) has become a major concern in higher education and research. Among the stressors specific to teaching and research, other factors are constantly added including personal and professional problems related to unfair cyclical competition for funding (including salary support), job insecurity for diplomas and researchers, the permanent balance between several roles (teacher, mentor, researcher, examiner, manager and administrator), overly busy and disrupted work schedules, etc. These professional commitments constantly disrupt the personal lives of researchers and teachers. The main sources of information on the mental health of students and teachers and researchers are the studies conducted by the Observatory of Student Life (OVE), the surveys of student or university organizations and mutuals and those carried out by various research teams in the different countries. Specifically, according to a meta-analysis published in 2016, different psychiatric disorders were diagnosed over the past year among the Canadian student population: schizophrenia (0.4%), bipolar disorder (1.4%), anorexia (1.3%), insomnia (5.3%); 27.2% of medical students, the most studied population, had depressive symptoms and 11.1% had suicidal ideation (according to a 2016 meta-analysis of 193 studies). The same is true for dental students, in whom there is a prevalence of 29% of depressive symptoms). Studies carried out respectively in France 2018, 201 and 2019 also find the presence of depressive symptoms in 25 to 28% of health students (medicine, dentistry and pharmacy Regarding French students in general, the surveys carried out in France by the National Observatory of Student Life in 2020 show that "Students encounter psychological difficulties, vary according to the periods of the school year. Nearly one-third of students show signs of psychological distress in the four weeks prior to their response to the survey. Female students 37% show signs of psychological distress, compared to 22% male students. International students are also more affected: 35% against 29% of students of French nationality. For example, international studies indicate that only 16.4% of students had received care for their disorders in the past 12 months". [1] The proportion of these factors is similarly 25.7% for the general student population in Europe and even 37.5% in France. The surveys cited show frequent signs among students of "depression", stress, anxiety, malaise, etc. In Switzerland, the number of students using psychological support services has been increasing since 2019. At the University of Lausanne the student associations contacted 2800 new students to discuss their adaptation to academic studies and help them enter this new life. According this surveys, more than one in two students surveyed said they suffered from stress and nearly one in two from worry, anxiety, depression, fatigue or demotivation, etc. At the University and the Polytechnic of Zurich, the number of students using psychological support services increased by 20% in one year, a trend also observed in Basel and Geneva, as well as in Fribourg, where student consultations jumped by almost 50% in 2019 compared to the previous academic year.

According to several studies carried out in many countries (USA, UK, Canada, France, Germany, Italy, Switzerland, Spain, Sweden and other countries), depression is the most

recurrent disease affecting students and academics. In order to better understand the causes of depression, it is first necessary to mention its several diagnostic criteria given in the Diagnostic and statistical manual of mental disorders (DSM -5) "A. Five or more of the following symptoms have been present during the same 2-week period and represent a change from previous functioning: at least one of the symptoms is either depressed mood or loss of interest or pleasure. 1. Depressed mood most of the day, nearly every day, 2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day. 3. Significant weight loss when not dieting or weight gain, or decrease or increase in appetite nearly every day. 4. Insomnia or hypersomnia nearly every day. 5. Psychomotor agitation or retardation nearly every day. 6. Fatigue or loss of energy nearly every day. 7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day. 8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others). 9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide. B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. C. The episode is not attributable to the physiological effects of a substance or to another medical condition." [2] One of the reasons for this depression in academia is the variability that exists in the definition of general malaise, and therefore in its measurement. In other words, a large number of students and teacher-researchers may experience symptoms without necessarily suffering from a psychiatric pathology according to international medical classifications. The other cause related to depression and stress is irregular eating in academia that can cause eating disorders and pathologies such as bulimia (heavy and uncontrolled ingestion of food) or anorexia (dietary restriction, sometimes accompanied by vomiting behaviors with or without episodes of bulimia). The various surveys and studies on the mental health of students and young researchers show that the accumulation of at least two reported eating disorders: 30.4% of female students report at least two eating disorders; there is also an age effect, with 27.0% of those under 19 reporting having ever been prone to at least two disorders, compared with 23.2% of 19-25 year olds and 22.5% of those over 25-28 years of age. In France, National Observatory of Student Life data reveal that "48% of students and researchers say they do not have regular meals during a normal week of classes. Of these, 71% do so due to lack of time or irregular schedules, 49% due to lack of appetite, 37% due to lack of desire to cook or go shopping and 16% for financial reasons. These dietary imbalances have adverse consequences on their health and may promote risky eating behaviours". I want to point out that within university circles, the likelihood of being prone to eating disorders is also more common among female or overweight individuals, and more often associated with symptoms of sadness, depression or anhedonia. At the same time, the results of this survey also show that "...a significant proportion of students also have risky behaviours: 36% of students are smokers, 40% consume alcohol at least once a week and 46% of students have already used cannabis and drugs at least once". It should be noted that several studies carried out in the different countries (including Switzerland, UK, Belgium, Sweden, Spain, Portugal and other countries.) confirm that students and young researchers, who suffer from a feeling of sadness, depression, anxiety, loss of confidence, have more addictions than others (they abuse alcohol, tobacco, and have a drug problem and dependence on various psychoactive substances, etc. Other psychological and socio-psychological factors that affect and weaken the state of mental health of students, doctoral students and young researchers have been noted by these different studies and surveys (anxiety and doubts about their academic orientation, ability to succeed in the chosen university

curriculum, problems with their teaching and conflicts with teachers or their thesis directors, lack of self-confidence, interpersonal and family conflicts, failures and disillusionment in love life, sexual problems, financial insecurity or poverty, sleeplessness, etc.

The problems of fragile mental health also affect university teachers and researchers. Then, a report published by *Wellcome Trust* in the United Kingdom (2020) highlighted concerns about career uncertainty and longevity, including a culture of long working hours, and continually changing goalposts with overwhelming and unrealistic expectations on productivity. According to this study, negative effects on research and mental health have often been identified as: a) inferior quality, b) angle cutting and superficial outputs, c) reproducibility/reproducibility problems, e) stealth research (adaptation to donor criteria), f) applicable rather than theoretical activity, unsupported interdisciplinary work, g) unpublished null results, leading to repeated studies, h) conservative research, i) selection results and data massage. It should be added that according to this study “felt that it would be difficult to report incidents of research misconduct, for reasons such as: lack of institutional support for whistle-blowers; fear of being labelled as a troublemaker, pressure to respect the team line (threat of complicity), potential difficulties in identifying and judging misconduct, etc.”[3] Furthermore, a third of participants (34%) described accessing support from a mental health professional for depression or anxiety since working in university. This proportion was higher for females (38%) and non-binary respondents (66%), than males (25%). For Evans, Bira, Gastelum, Weiss, and Vanderfold (2018) “With mental illness a growing concern within graduate education, data from a new survey should prompt both academia and policy makers to consider intervention strategies. Despite increased discussion of the topic, there remains a dire need to resolve our understanding of the mental health issues in the trainee population” [4]. Using the *Generalized Anxiety Disorder Scale and Patient Health Questionnaire*, Evans and colleagues (2018) showed graduate research students were more than six times more likely to report experiencing anxiety or depression than the general population, with rates of 39% and 41% respectively scoring in the ‘moderate’ or ‘severe’ range. Furthermore, work-related factors such as poor work-life balance and poor mentoring relationships were revealed as being more common in those with a mental health disorder. The international cross-sectional study (realised by Hill, Bailey, Benson, Show, Walton et al. 2021) involved 207 mental health researchers who were postgraduate students or employed in research institutes or universities. Participants were from Australia (63.7%), Europe (29.9%), North America (5.3%), and South East Asia (1%). Hill and his colleagues write that “Of the participants who responded to the question on mental health diagnoses, over half (54.6%) had received a mental health diagnosis at some point during their lives and a further 46 (30.1%) reported a suspected mental health disorder. The proportion of participants who had a diagnosed mental health disorder prior to their academic career was over one-third (37.5%), while just under one-third (31.6%) of participants received a psychological diagnosis since commencing their academic career.” [5]

From my point of view the main causes of appearance and the development of depression lie in the conflictual confrontation of the individual's self with the surrounding academic world, at the same time, as a position with this surrounding world and with the world created imaginary by oneself (in particular, student, teacher or researcher). On the other hand, I believe that these reasons also accentuate the question of the role of conflicts in their intrasubjective and intersubjective relations. One of other reasons of depression and stress of students, researchers and teachers related to professional and scientific overwork and over-activity that cause

burnout. In 2020, the World Health Organization (WHO) reclassified burnout in the 11th revision of the International Classification of Diseases (ICD-11) as an occupational phenomenon. Burn-out is defined in ICD-11 as follows: “Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions: a) feelings of energy depletion or exhaustion; b) increased mental distance from one’s job, or feelings of negativism or cynicism related to one’s job; c) reduced professional efficacy” [6]. Radtchenko-Draillard (2019) analyzed about 449 articles on burnout and according to her the burn-out is above all an ‘interdependent consequence between the conflicts that exist in different levels’: 1) at the intrapersonal level (between antagonistic offensive and defensive drives, between the needs of his professional tasks and the means available to achieve them, etc.); 2) at the intersubjective level (between individuals who reveal differences in the satisfaction of each person's desires or the need to be recognized by his colleagues, etc.); 3) at the intragroup level (between hierarchy and subordinates which manifest disagreements in decision-making, etc.); 4) at the intergroup level (between social groups in the situation where they show aggression in competition, precariousness, etc.); 5) at the international level (between opposing goals and the means of their realization of the different countries, aggravated by economic crises, etc.)” [7]. Other problems related to the fragility of the mental health of academics related to its status with a dual competence (or mission) of teacher and researcher, which induced in principle a temporal and spatial imbalance between these two professions, knowing also that teaching is not necessarily confused with training and that research also operates between places other than at the University, and that teaching and research were in principle a matter of collegial management. For this reason, university teachers and researchers are very divided anxious and stressed between several social worlds of the same profession with multiple charges of management and other delegations. Any breach of any of its service and production obligations potentially exposes it to a penalty, if not administrative, at least material or symbolic.

The impact of the COVID-19 pandemic on the mental health of students and teachers and researchers

The social distancing and lockdown measures taken by the governments of different countries around the world in response to Covid 19 have had major economic and psychological consequences on the population. In particular, students, teachers and researchers have been subject to significant upheavals. Social distancing measures at the university have led to an upheaval pedagogical. Courses were taught entirely remotely, exchange semesters abroad and many internships have been cancelled. Uncertainty prevailed during the period, putting students in difficulty and psychic suffering for some of them. Let us add that it is likely for that psychosocial stressors experienced by researchers, such as those involving work-life balance (characterized by work-life balance and work-family conflicts) have increased due to COVID-19 restrictions. The economic consequences of Covid 19 on students seem insufficiently yet studied for the moment. But I think we must already mention the loss of jobs and student vacations, internships, the difficulties for the integration of young graduates in a context of recession, etc. The issue of created or increased social inequalities between students by the Covid 19 epidemic (unequal remote working conditions, increase in financial and cultural differences in educational success) further marks the problems their fragile mental health. These effects can be particularly pronounced among specific groups, such as academics with young dependents as well as postgraduate students who may have experienced significant disruptions in their social support networks while working remotely during their studies. The mental health

of students has been the subject of substantial research regarding the period of the lockdown. In addition, as noted the study can be consulted on the basis of the World Pandemic Research Network (WPRN), researchers have showed that students are more subject to mental health problems than the general population. In particular, we can note the figure of 1 in 4 students with symptoms of depression and 1 in 10 suicidal thoughts. Several stressors have been put forward to explain this phenomenon: academic competition with their peers, the need to adjust to new geographical and social environments, uncertainties about the future or financial precariousness for some of them. Two studies conducted as part of WPRN analyzed in detail the impacts of the lockdown and physical closure of universities on the mental health of students. A Swiss study, carried out by Elmer, compared the psychological state of students during the first two weeks of confinement and during similar periods prior to the epidemic.” The majority of students have remained socially integrated but some students have already weakened and experiencing social difficulties, found themselves more isolated. They were mostly more depressed, anxious, stressed and especially socially isolated.” [8]

However, in Germany, the cross-sectional and anonymous online survey of 3,382 students at the German University assessed mental health status using standardized measures (depressive symptoms, alcohol and drug use and eating disorder symptoms, attitudes towards the COVID-19 pandemic and perceived burdens, as well as the social and emotional aspects of the pandemic – social support, perceived stress, loneliness etc.). “ The results show that almost half of students (49%) said they were worried or very worried about the COVID-19 pandemic; 37% indicate depressive symptoms; of suicidal thoughts were reported by 14.5% of participants”.[9] The stressors mentioned above have a significant impact on the mental health of health professionals and medical students. In Italy, The study was carried out by Romeo, Benfante, Castelli and Di Tella which aimed to study the psychological impact of the COVID-19 outbreak on Italian university students compared to general workers. “The responses of 956 participants (478 university students and 478 workers) were included in the final dataset. Results of comparisons between university students and general workers revealed that the former reported higher levels of anxiety and depressive symptoms.”[10]. In Spain the study revealed a substantial prevalence of psychological issues among university Spanish students in Spain during COVID-19: “The results concurred with the expected prevalence of negative feelings, including fear, worry, and stress. In this study, 44.7 % of the students were classified as having high anxiety and depression, 31.6 % as severe, and 23.7 % as normal. The results showed that the students suffered from anxiety and depression as well as social dysfunction.” [11] Furthermore, regression analyses showed that in university students, gender, health evaluation, and health concern and gender, educational level, and health evaluation significantly predicted anxiety and depressive symptoms, respectively. Moreover, for Delaney, Locke, Pershing, Geist, Clouse, Precourt Debbink et al.(2020) "In the survey of 5030 faculty, staff, and trainees of an American (US) health system, many participants with caregiving responsibilities, particularly women, faculty, trainees, considered leaving the workforce or reducing hours and were worried about their career development related to the pandemic. It is imperative that medical centers support their employees and trainees during this challenging time. "[12] Indeed, while the health crisis related to Covid 19 is currently persisting and universities are still disorganized, the consequences of these unprecedented events on the weakened psyche raise many questions. In these circumstances, mental health experts and university administrations must try to elucidate them and respond quickly to a growing demand from students and university teachers on this subject.

The generalized peculiarities of the university medical-psychological centres

The University Services of Preventive Medicine and Health Promotion are located in the many European universities. The medical-psychological centers in these university services are public institutions in the university campuses or outside the university that offer students and teachers an offer of mental care and bring together general physicians (general doctors), neurologists, psychiatrists, university psychologists, nutritionists, social workers, lawyers, psychomotor therapists, speech therapists, physiotherapists, nurses, etc. These medical-psychological centers offer punctual medical and psychological consultations, practice of analytical therapy (traditional analytical cure, psychodrama, art-therapy, music-therapy, orientation workshops, role-playing, negotiation sessions, etc.) socio-psychological individual or group workshops, supportive psychotherapies, psychological and medical e-consultation and distant psychotherapy, mediation and support group through the social network, etc. Their services and consultations, free of charge, are covered by the Health Insurance or the student mutual insurance. Many university associations for students, doctorate students, young researchers and teachers - local or national - offer free permanence and consultations. Other support services are based on volunteerism. Among medical students, intern unions have set up services like SOS SIHP - a psychological support cell managed by volunteer interns at the service of their colleagues" and among psychology students associations have organized Psycho Service services to manage conflicts and psychological problems among their students and doctorate students. In addition to the help of university psychologists and psychiatrists, other university services are added and supplemented, including the legal service to help people who have been attacked, victims of physical and sexual violence, moral harassment, and discriminations or to consult individuals who have family, personal or professional problems. On the other hand, the important role of social services and student and doctoral associations in helping students and young researchers who are in economic precariousness must be emphasized; precisely, in most centers on the university campus social convenience stores have been created, in cooperation with large retailers, which sell the promotional products of the first necessity at very reduced prices, in the other centers on the university campus restaurants and solidarity cafes have been created for young people in financial difficulty. Despite this differences in their organizations and functioning, I believe that their actions can be grouped around the following main axes: a) to set up the identification and care of students, researchers and teachers, of psychological suffering, b) develop the prevention, screening and first reception of people with psychological suffering, depression, behavioral disorders, c) intervene as soon as possible, at the place of life of the students and researchers to identify those who would be in difficulty and intervene urgently in certain circumstances of crisis (hospitalizations, conflicts, suicides, sexual assaults, etc.) in order to adjust an adapted response that can lead to the implementation of psychotherapy and talking groups, d) direct people in distress and in difficulty towards adapted and conventional care or even hospitalization by avoiding triggers, decompensations and the chronicization of a mental disability in hospitals or specialized clinics, e) fight against the precariousness and isolation of students, re-inscription these students in a dynamic of social connection, e) avoid a break in the student's career path and maintain his autonomy whether within housing or studies, d) collaborate with the agents of campuses, homes or university cities to have the light on complex situations encountered by the agents (director, reception agent, catering service, night watchmen), etc. f) to create optimal conditions for the activity of academics (students, doctoral students, researchers and teachers, university staff) and to ensure their professional and personal well-being. It should be noted that clinical practice with the

university public (students, doctoral students, researchers, and teachers) seems to be marked by some specificities related to the subjective issues of life in the context of higher education. These specificities are perfectly revealed in the sometimes urgent nature of the requests that are addressed. Thus, the urgent request appears as the precipitate of what the subject puts at stake in his condition of the individual at the moment when he is in crisis. It is a subjective crisis, in the sense that the psychic economy is upset and the subject is confronted with the unbearable. In this perspective, the clinical intervention of the university psychologist can propose levers that will promote this logical operation, this outcome hitherto hindered. Working in a consultation structure, the psychologist of the University service is therefore required to respond to requests that are sometimes urgent or qualified as urgent, whether they come from students or teachers themselves or from employees of the service. However in most university centers there are waiting lists for the reception of students, researchers and teachers (except emergency), but this does not generally exceed three – four weeks at the highest time of the year (at the beginning of the academic year). The duration of care in these centers is also very variable, it ranges from the single, punctual consultation to several years of psychotherapy: two or three years, rarely more. Among the major actions of prevention and optimization of health in the academic environment Radtchenko-Draillard (2020) distinguishes the following methods 1) the development of the offer of hospital-study care, 2) the strengthening of the specific reception of students in various sectors of health and the links with the consultation centers of medical specialists, 3) the continuation of the care of medical and psychological centers of students even if they have moved or change university, etc." [13] In addition, psychiatrists, general practitioners and university psychologists, who take care of students in its centers, could greatly benefit from interdependent exchanges with specialized doctors (gynaecologists, dermatologists-venerologists, urologists, cardiologists, dentists, gastroenterologists, otolaryngologists, etc.). Finally, it should be added that the specificities of the care and well-being offered to students and academics depend very much on the particularities of the functioning of each medical-psychological center and the internal policy and choice of the administration of each concrete university.

Conclusion

The fragile state of health of most students, teachers and researchers revealed in the numerous international cross-cultural studies and surveys must alarm the administrations, rectorates and university presidencies. Certainly, between navigating from one home to another (from family to university home) and having a schedule too busy or stressed, insomnia, irregular social and sexual life and in these circumstances the urgency appears as the precipitate of this discontinuity with the manifestation of acute suffering, anxiety, and generalized malaise. The specificity of the university population, its work rhythms and its autonomy in construction undoubtedly explains this greater vulnerability, which is manifested, in addition, by a deregulation of food practices. It can also be added that there are also more students in bachelor's degrees than in master's or doctoral degrees, which also explains their greater number in consultation. Precisely, the malaise of students and doctoral students-young researchers can manifest itself at two radically opposite extremes: 1) at the entrance of their university course, they can feel helpless, lost, anxious by this new life and these new benchmarks to be acquired in a university environment where the subject finds himself alone in the crowd, sometimes very far from family or country; 2) at the end of their studies, just before graduation or the thesis defense, it is often the anxiety of the transition to another life, that of the world of work, the entrance in another world far from warm environment and the comfortable cocoon of university with the

experience of loneliness that relates to it in young people.. It should be added that today university students and researchers live in an environment in which they have to deal with professional uncertainty, overly demanding academic performance, unfair competition imposed, as well as frequent financial difficulties. In these situations, there is a major risk for them to generate various stresses and increase the risk of suffering from depression and anxiety have a negative outcome on the course of their university course or professional career. As young adults with specific health needs, all students and young researchers must be able to have specific interlocutors in preventive medicine, psychological health and other professionals grouped in medical-psychological centers so that they become aware of the behaviors at risk to their health and that they benefit from appropriate support in case of difficulty. Their entry into adult life also requires better support for them towards full coverage of their health costs and towards general and specific health professionals when they need it. Therefore, it is urgent to set up effective medico-psychological centers to help fragile individuals. In addition, the systematized general medical examination, recommended by the administration or the presidency of the university from the first year of study, promotes the orientation of students, identified as going badly, towards mental health professionals.

References:

1. Observatoire nationale de la vie des étudiants. (OVE). Repères. 2020. { [HYPERLINK "http://www.ove-national.education.fr/wp-content/uploads/2021/01/Brochure_Reperes_2020.pdf"](http://www.ove-national.education.fr/wp-content/uploads/2021/01/Brochure_Reperes_2020.pdf) }
2. Diagnostic and Statistical Manual of Mental Disorders (DSM-5). 5 Edition. Washington D.C., London England. American Psychiatric Publishing.2013
3. Wellcome. What researchers think about the culture they work in. 2020.
4. Evans, TM., Bira, L., Gastelum, JB, Weiss, LT, Vanderfold N L, Evidence for a mental health crisis in graduate education. Nature Biotechnology. 2018; 36, pp. 282–284
5. Hill, N, Bailey, E., Benson, R., Show, Walton, C. et all. Researching the Researchers: Psychological Distress and Psychosocial Stressors According to Career Stage in Mental Health Researchers. 2021. License CC BY 4.0
6. International Classification of Diseases (ICD-11). The global standard for diagnostic health information. World Health Organisation. 2020
7. Radtchenko-Draillard S. The impact and prevention of burnout of psychic activity and nervous and immune systems. Medical Academic Journal. 2019. pp.236-241.
8. Elmer, T. Students under lockdown: Assessing change in students' social networks and mental health during the COVID-19 crisis". World Pandemic Research Network. 2020. WPRN-435252.
9. Kohls E, Baldofski S, Moeller R, Klemm S-L and Rummel-Kluge C . Mental Health, Social and Emotional Well-Being, and Perceived Burdens of University Students During COVID-19 Pandemic Lockdown in Germany. Frontiers Psychiatry 2021.
10. Romeo A, Benfante A, Castelli L, Di Tella M. Psychological Distress among Italian University Students Compared to General Workers during the COVID-19 Pandemic//International Journal Environmental Research and Public Health. 2021; 18(5), pp.25-33.

11. Marques, G., Drissi, N., Torre Diez I., Sainz de Abajo, B. Ouhbi, S. Impact of COVID-19 on the psychological health of university students in Spain and their attitudes toward Mobile mental health. *International Journal of Medical Informatics*. 2021; 147, pp.104-169
12. Delaney RK, Locke A, Pershing ML, Geist C, Clouse E, Precourt Debbink M, et al. Experiences of a Health System's Faculty, Staff, and Trainees' Career Development, Work Culture, and Childcare Needs During the COVID-19 Pandemic. *JAMA Netw Open*. 2021; 4(4): e213997.
13. Radtchenko-Draillard S. The prospects for protecting students' health and well-being in the activity of university medical-psychological centres in Western Europe. Annual all-Russian research and practical conference with international participation. "Health – The base of Human potential: Problems and Ways to Solve Them". 2020;.15 (2), pp.888-891.
14. Woolston, C., PhDs: the tortuous truth. *Nature*. 2019 ; 575, pp.403-406.
15. Pedrelli P, Nyer M, Yeung A, Zulauf C, Wilens T. College Students: Mental Health Problems and Treatment Considerations. *Academic Psychiatry*, 2015; 39 (5), pp.503-11.