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Review

Building Resilience in Students: Managed and Minimised Stress in Students

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Special Issue: How COVID-19 Changed Individual and Social Life: Psychological and Mental illness Studies on the Pandemic Outcomes

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Abstract

Stressful events in students' and teachers' personal, academic, and professional lives are widespread. The paper discusses many effective methods and techniques for correcting and preventing stress that are simple to learn and practice. They give good results in working with children, adolescents, and youths in training and education. Some practices are more complex and require more attention and effort to understand and master them, but they also have broader capabilities in various situations. Therefore, training sessions aimed at training in the prevention and correction of (di)stress conditions are very relevant and necessary. The results showed that there is a conscious and urgent need for students to reduce anxiety and stress, including ways to deal with learning stresses. Stress management can and should be structured and systematically organized, including in the instrumental sense: students need to be taught how to manage stress and themselves, increase their resistance to stress (resilience), and be trained to use different coping techniques with anxiety, as appropriate. In an empirical study, representatives of other groups of students from three Kazakh universities answered questions from three author's stress questionnaires. According to the respondents, the study results showed that students need knowledge about stress. The study showed the urgent need for special educational and training seminars, lectures, and even courses on (di)stress and physical, mental, and moral injuries and coping with them. Such classes are needed to help schoolchildren and students cope with stress and avoid problems with moral, mental, and physical health to prevent other negative consequences of school and related strains.

Keywords

Academic performance; mental health problems; prevention; stress; stress management techniques; treatment

1. Introduction

Promoting resilience in students is becoming a critical aspect of teaching globally and is a focus of attention across Kazakhstan, Russia, Austria, the UK, and worldwide in whole curricula. Students are under enormous financial, personal, and other pressure [1-7]. Students who are required to work alongside their studies also experience stress, as do levels of debt associated

with studying [8, 9]. Part of the problems is related to the digitalization of education and life in general: social media platforms play a role in increasing sensitivity to stress and exposure to focus together with the sensibilities of Generation Z ("digital natives") [8-10]. Our stress investigations show that Kazakhs and other students at universities are very stressed during their studies. This confirms that they need methods to deal with it. Similarly, as American researchers note with the example of New York University [11], about 55% of students reported stress: 6 out of 10 students said that they experienced such anxiety that they sometimes could not learn. Not only external but also internal problems interfered with them. Some students perceived these problems as challenges of fate and learned to deal with them. Some students gave up and abandoned their studies, often resorted to the "help" of medical and narcotic drugs, etc.

It is important to note that work with stress, including the development of stress resistance, is associated with students with such aspects as struggling with feelings of low self-worth or low self-esteem. Coping with stress in its active forms implies high self-esteem and faith in its effectiveness and self-efficacy. Supporting this confidence is connected with the experience of one's achievements and providing the student with methods, techniques, and self-management techniques in difficult, stressful situations.

2. Materials and Methods

The purpose of our study was to find out what students and schoolchildren have in their minds about stress, about ways to prevent and correct it, including whether training seminars and training on stress management are necessary and practical. The methods of theoretical and empirical research of the problem of coping with stress in students were used in the work. The main empirical research method is the survey method; students are offered the author's "University stress" questionnaire. Using this technique, we surveyed how stress affects students in our study's practical part. Our study aimed to study students' opinions on a number of issues related to stress in their student life, as well as on the prevention and correction of these stresses.

The novelty of the research is related to the attempt at integrative analysis of stress in university students as a physiologically and socially conditioned psychological state. The article provides an integrative study of the problems of prevention and correction of educational and other stresses among university students. In the example of Kazakhstan, students' requests for help in coping with stress are considered. A system of methods is proposed to help prevent and overcome anxiety. We discuss how stress affects the academic performance of Kazakh students and can cause mental health problems and their consequences in academic life. In the empirical part of our study, we surveyed how stress affects students. Our study aimed to study students' opinions on a number of issues related to stress in their student life, as well as the prevention and correction of these stresses. The questionnaire included questions about how this and related concepts are perceived by 1st-3rd -year students of three different Kazakhstani universities: Kazakh Pedagogical University, named after Abai (future teachers were surveyed). The Institute of Metallurgy and Ore Beneficiation (future engineers were studied) and Almaty University management (future managers were interviewed). We surveyed 300 students, including 50% girls and 50% boys, aged 17 to 25. Teachers distributed the questionnaire during classroom lessons in psychological and pedagogical disciplines.

In addition to the questionnaire (including at the exploratory stage of the study), we used the author's versions of the methods of unstructured observation ("Typical reactions to stress in education") and free conversation ("How to respond to stress?").

The objectives of the observation and conversation were:

1) to identify students' ideas about stress, their destructive or stimulating influence on general activity, as well as on educational results,
2) to study typical forms of response to focus on the process of obtaining an education,
3) Attitude towards special classes and procedures aimed at reducing the negative impact of stress, students expressing the need for such activities.

When developing our questionnaire "University stress", we proceeded from the requirements of construct validity: the questions included in it fully correspond to the structure and objectives of the study.

The following procedures ensured the reliability and validity of the research results:

1) comparison of problems of theoretical structure and empirical parts of the study;
2) analysis of data from preliminary (reconnaissance) research carried out using observation and conversation methods;
3) application of methods of primary and secondary statistical data processing.

Questions given to the students included three groups of questions:

1) Inquiries related to studying the extent to which students are familiar with stress states and how they react to them: a) How do you understand the word stress? b) How do you feel when you are stressed?
2) the question related to the influence of stress on their life activities: c) "In your opinion, does stress influence students' academic life?"
3) the question of whether it is necessary to teach awareness and transformation of stress in educational organizations and whether there is a need for special classes in which methods of working with stress are taught was intended to assess the relevance of the request for psychological and pedagogical support and correction of stress.

The data obtained through the survey was processed using the content analysis method, a qualitative-quantitative study of leading trends. This method does not require extensive secondary mathematical processing since it is considered highly reliable and reliable even with 19-30 sources of information (respondents or texts). However, we also processed secondary mathematical data, comparing students' results from 3 universities. Secondary mathematical processing of data involved a comparison of subgroups of respondents using the U test. This statistical method was proposed by Fr. Wilcoxon in 1945, and later, in 1947, the technique was improved and expanded by H. B. Mann and D. R. Whitney (Wilcoxon–Mann–Whitney test, *MWW,* number of inversions criterion or rank sum test).

3. Literature Review

Stressful events are prevalent in a modern person's personal and professional life, especially in schools and universities. The term "stress" was first proposed to solve the problem of how artificial structures should be designed to withstand heavy loads and resist deformation. With the transition from the natural sciences to behavioral sciences, the term "stress" has changed [12-14]. For about the last 50 years, the term stress has been used regularly, and, over time, despite the

study of many of its aspects, it is used more and more often. In modern science, including medicine and biology, pedagogy, and psychology, there are many concepts and definitions of stress. In contemporary science, including drug and biology, pedagogy, and psychology, there are many concepts and definitions of stress, resistance to stress, and coping with stress, as well as injuries and post-traumatic conditions and disorders. In numerous scientific studies, researchers have repeatedly systematized models and theories of stress created and described psycho-diagnostic tools for studying various types of stress, theoretical approaches, and practical techniques for managing stress. Their works consider the main factors that cause, provoke, and support the state of stress, distress, and post-traumatic stress, substantiating the possibility of prevention and correction of these conditions and the associated bodily, psychological, moral, and complex disorders from the standpoint of various theoretical approaches. Now we need the integrative review, being the combination of narrative review (i.e. academic, historical, general, and methodological reviews) and systematic review (i.e. meta-analysis, meta-summary, rapid thinking, and meta-synthesis) [8, 9, 15]. In our article, we do not set the task to carry out all the "seven steps" to an integrative analysis of stress problems and the person's resistance to stress. However, we deem it necessary to highlight the basic concepts and approaches (models) of stress and coping with it.

The problem of stress was first considered by W. Cannon (in his classic works on the universal answer "fight or run") [16], in the studies of R. Lazarus, as well as in the results of H. Selye (who published his first work on the syndrome of general adaptation) [17-20]. H. Selye wrote: "the non-specific response of the body to any demand made on it. The non-specific requirements of exposure as such are the essence of stress" ([18], p.32). Later, G. Selye specified stress as "a state manifested by a specific syndrome which consists of all the nonspecifically induced changes within the biological system"([20], p.64). Stress the dynamics at which we live at any one moment. All living beings are constantly under stress, and anything pleasant or unpleasant that speeds up the intensity of life causes a temporary increase in stress, the wear and tear exerted upon the body [21, 22]. He showed that human existence is associated with constant stress, and if stress depletes the resources of a person, then there comes a disease or even death. In modern science, stress is multifaceted, multilevel, a psychophysiological phenomenon characterized by dynamism, duration, and intensity. Many people consider stress everything that happens to a person if he is active. H. Selye equates lack of stress with death. To limit this concept, R. Lazarus introduces the concept of psychological stress, which, in contrast to the physiological highly stereotyped stress response to harmfulness, is a reaction mediated by threat assessment and protective processes [23].

In modern psychology, the following psychological models and theories of stress are distinguished [24-33]:

1. Models focused on the medical approach. Genetically constitutional theory: the body's ability to resist stress depends on genetically fixed protective strategies for functioning (genotype), regardless of current circumstances. Another model is very similar: a model of predisposition (diathesis) to stress. This model allows the mutual influence of genetic factors and unexpected, robust results in the development of stress reactions.
2. Psychological models. Conservation of resources theory has become one of the two leading theories of stress and trauma in the past years, along with the pioneering idea of R. Lazarus and S. Folkman [17, 27]. Conservation of resources theory emphasizes objective elements of

threat and loss. This theory has also become significant in burnout and positive psychology [30]. Resilience is a complex phenomenon, which (im)mediates in successful (re)adaptation to adversity and crises. Researchers and practitioners try to understand and correct its various forms and types in different situations and spheres. The modern research evidence presented provides a glimpse of the meaningful relationship between resilience and health while unfolding the consequences of resilience on various health outcomes [24, 30, 32, 34]. A psychodynamic model based on the principles of Z. Freud's theory describes two types of anxiety as a typical cause of "psychopaths of everyday life": a) signaling anxiety is a reaction to anticipate real external danger; b) traumatic anxiety is the result of exposure to an unconscious, internal source (restraining sexual and or aggressive instincts).

3. Socio-psychological and conflict theories reflect the relationship between subjects' behavior in society and the state of tension in the relationships that accompany group processes. The leading causes of anxiety are associated with the need for members of the community to obey its social standards. Stress prevention is related to the experience of freedom in the choice of attitudes and relationships, the stability of social relations, the fair distribution of economic goods and services in society, the legitimacy of power, etc. Within the framework of these theories of stress, the evolutionary theory of the social development of society, the environmental approach, and the idea of life changes (in the family, at work, etc.) are popular [35]. One example is the model created by B. P. Dohrenwend [36]. Stress is a system of behavioral reactions to socio-psychological stimuli and stressors (for example, objective events that disrupt (destroy) or threaten to undermine an individual's ordinary life). This is the state of the body, which is based on adaptive and non-adaptive reactions. H. G. Wolff model [37]. He considered stress as a physiological reaction to socio-psychological stimuli. He established the dependence of these reactions on the nature of attitudes and relationships, motives of an individual's behavior, and certainty of the situation. D. Mechanik model [38]. Adaptation mechanisms are how an individual struggles with a situation, with his feelings and thoughts caused by this situation. There are two aspects: 1) a coping struggle with the situation, and 2) a defense struggle with feelings and thoughts caused by the situation. Overcoming "mastery" of a situation is determined by purposeful behavior and the ability of individuals to make adequate decisions when meeting life tasks and requirements.
4. Interdisciplinary, systemic, and integrative models. Interdisciplinary stress model: stress arises under the influence of stimuli that cause anxiety in most individuals or their representatives. Stress leads to several physiological, psychological, and behavioral reactions, either pathological or leading to higher levels of functioning and new regulatory capabilities. The systemic and integrative stress models consider the processes and results of management (behavior, adaptation, etc.) at the level of systemic self-regulation. Management occurs by comparing the system's current state with its relatively stable regulatory values. A problem requiring a person to decide is related to the manifestation and impact on a person of incentives or conditions requiring him to exceed or limit the usual activity level. The occurrence of a problem (difficulties with its solution) is accompanied by a strain of body functions. If the problem is not solved, tension persists or grows, and stress develops. A person's abilities to solve problems that arise before him depend on several factors: 1) human resources, his general abilities to solve various problems, 2) the energy

potential needed to solve a particular problem, 3) the nature of the problem itself, the degree of unexpectedness of its occurrence, etc., 4) the adequacy of the psychological and physiological attitude to a specific problem, 5) the type of response protective or aggressive. The importance and consideration of these factors determines the choice of a strategy of behavior for the prevention and coping of stress.

In some approaches, stress is often understood as a solid adverse effect that negatively affects the body. However, this definition is not enough.

In another approach, subjective reactions that reflect the internal mental state of stress and arousal fall into the stress category. This condition is interpreted as an experience of anxiety(threats, etc.), protective reactions, and overcoming processes that unfold in the intrapersonal plane.

The third approach to stress is a combination of non-specific features of the physiological and psychological reactions of the body with solid and extreme effects on it, causing intense manifestations of adaptive activity. These reactions aim to maintain or transform behavioral actions and mental processes to overcome these stressful effects.

The circumstances that cause stress are known as stressors. According to G. Essel and P. Ovusu, stress occurs not only due to adverse, tragic, and unpleasant events. Pleasant, joyful, reuniting people with themselves and the world, positive events also cause stress. In everyday life, people believe that stress is always wrong. However, this is not the case [11]. There are two types of stress: eustress and distress. Many pleasant, positive situations cause stress in a person, for example, promotion, starting a new job, getting married, having a baby, etc. Positive stressors are usually not noticed or ignored (for several reasons). First, joy is often a short-term event. It is fascinating. Positive stress enhances the quality of self-reliant partner and labor relationships (including productivity). This improvement motivates people to move on, not enjoying the great or small joy. In addition, some people are pessimistic; they do not like to be happy because it destroys their negative karma of the world and themselves. In addition, negative stressors are easy to spot. Examples of negative stressors are the death of a loved one, divorce, unemployment, serious illness, etc. Some characteristics of negative stressors facilitate their identification. They cause concern and make a person alarmed. They, even with short exposure, can have long-term effects. They also reduce productivity and morale and lead to deformations in relationships with oneself and the world. G. Essel and P. Ovus also mention some other types of stress, which are different. For example, there is eustress, and "this is any kind of informational or sensory stimulus perceived as unimportant" [11].

The most accurate interpretation understands stress as non-specific physiological and psychological manifestations of adaptive activity during intense and sometimes extreme for the body and significant for individual influences.

J. Averill, following G. Selye and S. Sells, considers the essence of a stressful situation to be the loss of control, that is, the absence of a reaction adequate to this situation, with the significance for the individual of the consequences of refusing to respond [19, 20, 39, 40]. The concept of life events is connected with the idea that any change is stressful and requires adaptation. A life event is a discrete change in the social and personal environment of the subject. The event should be a change, not a steady state, and be an external, verifiable, and not just an internal, psychological change [41, 42]. For our study, it is important to recognize that stress reactions to more or less "non-specific" events can be controlled.

Although the stress response is very complex, we can focus on two major stress systems [43]:

First, the nervous system is activated within a few seconds to release catecholamines from the adrenal medulla and the locus in the brain stem. Catecholamines (adrenaline and norepinephrine) are involved in the “fight or flight” reaction (activation of blood circulation and respiration) [Figure 1].

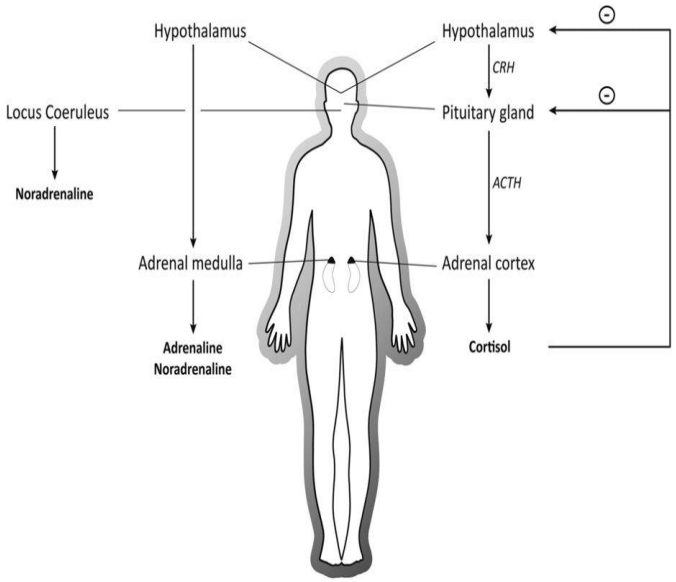

Figure 1 Major stress systems (Vogel, Schwabe, 2016) [43].

However, they also profoundly affect attention, working memory, and long-term memory. If the danger does not appear after the first exposure, then the stress reaction will be over! If a person finds trouble, the second action begins: the axis of the hypothalamus-pituitary-adrenal gland is activated, releasing corticotropin-releasing hormone (CRH) from the hypothalamus. This hormone stimulates the release of the anterior pituitary gland, adrenocorticotropic hormone (ACTH). ACTH, in turn, causes the adrenal cortex to produce cortisol and release it into the bloodstream. Cortisol reaches peak concentration levels approximately 20-30 minutes after the onset of stress. It quickly enters the brain, which affects cognitive function and behavior. Cortisol binds to two different receptors: the glucocorticoid receptor (GR) is expressed everywhere in the brain, while the mineral corticoid receptor (MR) is mainly expressed in areas of the brain associated with memory and emotions (hippocampus, tonsil, prefrontal cortex). When binding to these receptors, cortisol acts in two ways:

1) Non-genomic, often MR-mediated mode develops rapidly. It presumably supports memory formation and enhances nervous excitability in the amygdala and hippocampus.
2) The fast regime is followed by a slower, often GR-dependent administration, which is supposed to develop approximately 60-90 minutes after the stressor's onset and includes longer-term changes in DNA translation and transcription [43].

The cortisol feedback to the pituitary, hypothalamus, and other brain areas (for example, the hippocampus) prevents system imbalance.

It is important to note that cortisol is released under stress and with any changes during "normal life."The peak of its activity occurs after a person wakes up from a dream [44].

Cortisol is not only released during stress but is also essential for many normal or basic body functions. To react actively to environmental changes and to change the types of activity, a person needs a constant flow of cortisol in the blood. Not surprisingly, cortisol is secreted in a very predictable and almost universal rhythm in all people. This is called the circadian rhythm: we observe the peak of cortisol early in the morning, and cortisol levels slowly decline during the day. By the end of the day, they rise again in the early night hours, preparing themselves for the morning peak. Thus, a person usually has two conditions with different levels of the hormone cortisol:

- *Resting (basal) cortisol levels.* These are the normal levels essential for normal functioning;
- *reactive cortisol levels.* These are increases in cortisol in response to stressors.

The physical effects of stress are well known: diseases of the heart and blood circulation, stomach and intestines, problems with sexuality, weakening of the immune system, and so on. In addition to them, mental and moral disorders are observed. Therefore, wars and catastrophes are usually associated with heavy moral persecutions, starting from a person's awareness of his sometimes-paralyzing fear and ending with experiences such as "survivor's guilt."

Chronic stress negatively impacts nerve cells: dendrites shrink, and the spine (docking station for other nerve cells) density in the hippocampus and prefrontal cortex is reduced. These processes are reversible to some extent, especially in young animals and humans; physical exercise, for example, has a positive influence [45, 46]. Stress shortens the so-called telomeres and accelerates aging. A telomere is a region of repetitive nucleotide sequences at each end of a chromosome, which protects the end of the chromosome from deterioration or fusion with neighboring chromosomes. Its name is derived from the Greek nouns telos (τέλος), «end,» and meros (μέρος, root: μερ-), «part» [47]. Stress processes in the brain are very complex, multi-level, and multi-aspect. They are connected with each other and other functions by various direct and feedback mechanisms, organized into systems and subsystems. In a stressful situation, for a correct understanding of the statutes and an adequate assessment of stressful situations, it is important that the "higher" areas of the brain work actively in the person: the thalamus, neocortex (and the prefrontal cortex), limbic system, hippocampus, tonsil ([48], p. 45)!

Stress, in the framework of medical models, is a non-specific (general) reaction of an organism to an impact (physical or psychological) that disrupts its homeostasis and the corresponding state of the body's nervous system. Within the framework of psychological models, stress is a person's reaction to any significant changes in his orchestrating world and to substantial changes in his inner world. The data obtained by colleagues means that stress has a direct effect not only on the body but primarily on the brain. Failure to adapt to stress can lead to malfunctions of the brain itself. They can lead to physiological problems (pain and illness, fatigue and exhaustion, psychological issues (asthenia and depression, anxiety and fear), as well as moral (deviant and delicate behavior) [11]. Many of the mental and physical symptoms that are common in the student community, such as headaches, fatigue, depression, anxiety, an inability to cope with the problem in the form of learned helplessness, deadlock states, loss of self-confidence and self-control, disorientation in life can be attributed to or exacerbated by stress [49]. Recent studies show that mental health problems related to stress between 1990 and 2015 were registered on campus regularly. Besides, increased stressfulness in the learning environment, distress, and learning injuries correlated with some severe consequences of violations of a person's relationship with himself and the world. This shows, for example, the growth of student deviations, illnesses,

deaths, and suicides. Sometimes, separating the “physiological” and physical consequences of stress from the psychological ones is impossible. Therefore, stress is most often written in behavioral and health sciences.

The differences between the medical and psychological approaches are minor: medicine emphasizes the effects of stress on the state of the nervous system and the human body, and psychology on its psychological state and functions. Moreover, in physiology psychology, positive (eustress) and negative (distress) forms of stress are distinguished in medicine. By the nature of the effect, neuropsychic (psychological) and physical and physiological stresses are distinguished. However, several scientists consider that the direct transfer of the provisions on the physiological characteristics of the development and manifestation of stress into the field of psychology is unproductive and incorrect. Therefore, R. Lasarus believes that physiological and psychological stresses significantly differ among themselves in the stimuli's characteristics, development mechanisms, and the nature of the responses. With physiological stress, homeostasis is disturbed by the direct action of the trigger on the body. The body function is restored using visceral and neurohumoral mechanisms that determine the stereotypical nature of the reactions. Psychological stress develops by assessing the situation's significance for the subject, his intellectual processes, and personality traits [50].

In biology and medicine, the leading scientists and practitioners emphasize not the initial states of stress and its causes but the final phases of the stress process. They are the pathogenetic basis of many diseases. In the psychological approach, as well as providing psychological and pedagogical (educational) impact, minimizing stress and related disorders in education, paying attention to all factors and causes, forms and processes, results and consequences of stress is essential. With this holistic approach, it is possible to successfully prevent and correct stress, including training students to do this using special procedures and techniques.

4. Results and Discussion

In our article, the term "stress" is used in the integrative context of ideas about it as a factor in moral, mental, and physical health violations. The quality of education and the educational system is among the national interests and priorities of Kazakhstan and many other countries. This quality can be comprehended and supported with the help of strategic and systemic methodology. This methodology includes several areas and technologies of research and organization of education (including in the context of ideas about stress and distress, “school” or “university neurosis,” didactogenias. Didactogeny is a violation of the development and functioning of a person as a person, partner, and professional student at the physical, psychological, and moral levels that arise from breaches in the didactic system [51]. Essential aspects of stress-protective, health-saving activities in education are prevention, correction intervention, and postvention stress and trauma education. At some stages of the study of an organization's ability, its educational process, or a separate didactic communication to generate or impede stress and trauma, certain steps can be supplemented by multivariate analysis. This analysis allows taking into account the strengths and weaknesses of the studied object's development and existing risks in conjunction with factors of influence of the external and internal environment ([52], pp.149-154).

It is also important to note the existence of specific stresses associated with the developmental features of modern students. These features are considered, in particular, by theories of

generations, including approaches that study the specifics of world understanding and self-understanding of the learning generations Y and Z [53-57]. The digitalized world is different from the analog world: finding the necessary information, including how to deal with stress and solve problems, and getting confused is easier. The lack of human relations and support is especially noticeable in electronic education, including in remote formats. On the contrary, the usual educational environment allows the teacher to help students by directing their choice of information search and quickly correcting errors in relationships and attitudes. Social networks only to some extent (in addition to the primary communication with the teacher, mentor, and other students) can help students correct their mental state, such as anxiety, which affects the stress level in everyday life and learning. Each person needs real support, absolute coping methods, and prevention methods.

There are many significant reasons why teaching and coping with stress prevention in education is critical: people who know how to regulate their state during stress are generally less stressed and more harmonious ([58], p.95).

As is well known, stressful events can be prevalent in both private and professional life. There are many of them (many kinds, forms, and levels) in universities! Studies suggest that many students and lecturers experience significant mental health issues. Stress is a major problem in higher education! Stress-related disorders can impair cognitive functions, leading to poor achievements with exams and life as a whole [9, 43, 59]. Mental health difficulties contribute to achievement problems and college relationships [60]. In severe cases, they prevent students from regularly attending class. Still, students more often struggle with these problems daily, leading to further negative social and academic function [61]. The word stress conjures up thoughts of depression, negativity, anxiety, and other potentially life-threatening issues, including suicide.

To help students, you need to understand that modern students are faced with a variety of situations that cause stress:

- Personal factors vary from person to person, including internal conflicts, etc. Some students are unable to learn, are not ready to cooperate, are confidential, and are not focused on education as a value. Some students have problems with cognitive or emotional processes, etc.;
- Socio-psychological difficulties and conflicts: building, developing and completing relations with teachers and students. Joining the study group and building relationships with other students, and especially teachers, is a severe and vital area that regularly produces "didactic neurosis" and other disorders;
- academic factors. From the point of view of educational factors, it is necessary to distinguish various problems, for example, an increase in the academic load, especially with a large number of tasks, disappointment when students receive a grade lower than expected; excessive hours of study, which leads to a reduction in free time; there may be language difficulties (Dave, 2009) ([62], p.5]). A common stressor is procrastination: students put off their assignments until the last moment and don't have time to do the job correctly. Exams are severe stressors: this is the only way for a student to prove that they deserve a better mark for the course, and because of these students, some tend to think and even get hung up on the term paper and try to review everything that they have learned for the entire period of the course. At the same time, some students are overwhelmed and confused on many topics and do not know what to do next with their studies. Missed lectures and

seminars often become stressful: some students miss classes. Before exams, they ask how to compensate for their lessons to be successful;

- factors of lifestyle changes and habits, for example, relocation (from a small hometown or village to a big city) and other factors. It is also possible to attribute here changes associated with large academic workloads. Because of them, some students suffer from a lack of rest. Many also have new responsibilities and sometimes combine work with study. Several students may have financial difficulties, especially if they pay for their education. Students may have health problems and bad habits in sleeping, eating, and daily routines. Sometimes, due to study, students do not have enough time to engage in physical exercises, prepare food for them, etc. Poor living conditions can be crucial in lowering mood and overall student distress. When students live in substandard conditions and when it is difficult for them to afford some basic amenities, they can quickly become depressed.

This affects all aspects of their life and their studies.

5. Empirical Study

In this part, we discuss how stress influences the academic performance of Kazakh students and can cause mental health problems and their consequences in academic life. Permission was obtained from the Ethics Committee of the Academy of Sciences of Kazakhstan to conduct the study.

In the empirical part of our investigation, we surveyed how stress affects students. These included questions about how students perceive this word. Questions below were asked in three Kazakh universities: The Abai Kazakh Pedagogical University, The Institute of Metallurgy and Ore Benefication, and The Almaty Management University. All students (300 students, girls 50%, boys 50%, aged 17 to 25) were required to complete the survey, which contained demographic information and four questions. The demographic information was used to ascertain each student’s data, such as gender and place of study.

In our work, we relied on the idea that since each student was faced with stress in one way or another, we had an idea about him. In addition, the more pressure he has experienced or is experiencing, the more developed is his presentation of stress. For the study, several questions were addressed to students living on student campuses. Some of the students had work outside of school. Almost all respondents were single, unmarried, and had no children.

There were no significant differences between students working and not working. For the most part, modern students are oriented at least to fragmentary part-time jobs since they have financial difficulties and strive to "achieve something in life."

The differences in the gender plan were insignificant. They did not go beyond the traditional ones: a more passive and somewhat depressive attitude among girls and more active and aimed at coping with boys.

Age factors were not monitored, although there was a slight increase in performance among senior students: a decrease in optimism in assessing their abilities would cope with life's difficulties and find a good job, achieving professional and career success.

A comparison of the stress resistance of students from 3 universities also showed the absence of significant differences. However, there was a general tendency to increase stress resistance and interest observed in special classes among future teachers and psychologists.

Our study aimed to study students' opinions on a number of issues related to stress in their student life, as well as the prevention and correction of these stresses. A list of questions is provided below. The purpose of the surveys was to determine how stress is perceived and to find out whether, with the change of students, it is necessary to conduct seminars and other stress management classes to increase students' resistance to stress.

The answers to the questions were approximately the same.

Our findings show the need for seminars, seminars, and even compulsory education courses to help students cope with stress and avoid mental health problems and other adverse outcomes.

In our future research, we plan to use a more complex questionnaire for a more differentiated, multilevel, anddiverse study of students' perceptions of the impact of stress on academic performance and mental health.

Questions are given to the students:

1/ How do you understand the word stress?

Typical answers given by students:

- a state of mental or emotional stress or overstress, a form of stress resulting from adverse or required circumstances (87%, girls 91%, boys -83%);
- a person's condition, causing fatigue and exhaustion (90%, girls 95%, boys 85%);
- stress is a decline in morale, depression, and asthenia (55%, girls 60%, boys 50%);
- stress is primarily a physical reaction activated by negative mental attitudes and moral conflicts (68%, girls -77%, boys -59%).

Our findings show that, according to students, when a person is stressed, he goes into the “run or fight” mode. The body develops a complex mixture of hormones and chemicals such as adrenaline, cortisol, and norepinephrine. The endocrine system actively produces them to prepare the body for physical actions. Students think that the presence of stress indicates that the nervous system and the person’s life are not balanced, not harmonious, and not suitable for him. The person experiences psychological pressure that may arise from a problem in studies and at work. This often happens in students. Significantly, often in universities, students experience stress when it comes to new, incomprehensible, complex, or large study assignments and exams. It also occurs when there is a shortage of time ("burning "terms) and other needs of habitual resources. Stress activates available resources and requires new ones, encouraging a person to develop their relationship with others, asking them for help, and encouraging them to build their knowledge, etc. If stress occurs without authorization (meet demand), it can lead to serious health problems and poor performance. The frustration of a person’s needs leads to stress (in harmony with relationships, understanding what is happening, controlling his life, etc.). It must be overcome one way or another, including by reducing desires to significant needs. However, if a person is frustrated with his needs (not wants), he may die.

2/ In your opinion, does stress influence students’ academic life?

Without exception, all students answered identically: yes (100%)

3/In *your point of view: Should stress awareness be taught in educational organizations such as schools and universities?* (100%)

Without exception, all students answered identically: yes (100%)

4/How do you feel when you are stressed?

Students give answers:

- Experience of powerlessness and inability to withstand circumstance (difficulties): “I feel a lot of pressure from the outside, and at some moments, I feel that I can not control my destiny. Therefore, I need to step aside and relax, then clarify my thoughts and emotions, as well as continue my efforts and achieve my goal,76%; for girls,86%, for boys 66%:

  depressed state: “I feel so miserable, constantly depressed. I am starting to get depressed; emotions and thoughts seem to be “off”67%, including 78% for girls, 56% for boys);

  increased aggressiveness: “My mood is getting worse; I become aggressive, angry. Irritation results in oneself or others”,69%, including 65% for girls, 73% for boys);
- alienation and isolation: “I feel isolated. However, I have no desire to communicate with people. "

  “I’m in suspense all the time and think about the problem. Sometimes I want to listen to music, especially motivational, to cheer me up”, 80%, including 92% of girls and 68% of boys), coping attempts: “I'm looking for a way to relax and relieve stress. I do not always succeed. And sometimes I get sick,83% of respondents, including 100% of boys and 66% of girls).

Next, the results of the qualitative analysis were transformed into systems of categories (concept and sources of stress; stress results and consequences; influence on the academic life) and subcategories of content analysis, and a comparative analysis of the data was carried out by subgroups of respondents (Table 1).

Table 1 Perceptions and reactions of students of different groups about stress.

Content analysis subcategories	Future psychologists and teachers	Future managers	Future engineers	Total
Concept and sources of stress				
stress is the result of external unfavorable circumstances	91%	78%	92%	87%, girls 91%, boys -83%
stress is a decline in morale, depression, and asthenia	60%	51%	54%	55%, girls 60%, boys 50%
stress is a physical reaction activated by internal attitudes and conflicts	74%	68%	59%	67%, including 78% for girls, 56% for boys
Stress results and consequences				
results of the stresses are depression, internal attitudes, and conflicts	72%	68%	64%	68%, girls -77%, boys -59%
results of the stresses are temporary fatigue and exhaustion	86%	90%	94%	90%, girls 95%, boys 85%
results of the stresses are constant powerlessness and inability to withstand circumstance	81%	76%	71%	76%; for girls 86%, for boys 66%
results of the stresses are increased aggressiveness	63%	69%	75%	69%, including 65% for girls, 73% for boys
results of the stresses are alienation and isolation	92%	81%	67%	80%, including 92% of girls, 68% of boys
Influence on the academic life				

stress influences students' academic life	100%	100%	100%	100%, 100% of boys and 100% of girls
stress ccomplicates educational activity	100%	100%	100%	100%, 100% of boys and 100% of girls
stress makes educational activity disordered	100%	100%	100%	100%, 100% of boys and 100% of girls
stress reduces academic performance	83%	79%	87%	83%,86% of boys and 80% of girls
stress stimulates disordered educational activity	52%	46%	37%	45%,56% of boys and 34% of girls
students need for special classes teaching coping and stress prevention	100%	100%	100%	100%,100% of boys and 100% of girls
students practice independent coping attempts	91%	83%	75%	83%,100% of boys and 66% of girls

Thus, for girls, reactions of disappointment, lack of self-esteem and depression, and a sense of inability to cope with difficulties are more characteristic. Active postures and aggressive confrontation with difficulties are more typical for young men. However, for all respondents, all of the above reactions are highly probable and mutually reinforcing. This indicates a relatively high disadvantage of the respondents. Since the study was based on a random sample, it can be said that students in Kazakhstan generally experience a lot of stress, not being able to cope with it quite effectively and efficiently. They get along in helping and learning the methods and techniques of dealing with stresses in rash areas.

Comparison of subgroups of educational psychologists and managers using the U criterion (Wilcoxon–Mann–Whitney test) led to obtaining values $U_{Emp} = 96$. That is, the differences are not significant. Similarly, the differences between the subgroups of managers and engineers ($U_{Emp} = 107$) and between educational psychologists and engineers ($U_{Emp} = 102.5$) are insignificant. It is also important to note that differences and similarities could influence the study's results in the educational conditions in the universities studied. Therefore, in the future, it would be interesting for us to compare data from students from different countries and regions with varying models of educational relations.

Our study was, in fact, aerobatic. In the future, we plan a more detailed analysis of problem areas and types of respondents. In this study, only trends were identified that were common with those of other stress-coping studies:

1) The presence of passive and active coping strategies;
2) the influence of the respondent’s self-esteem and the assessments of people around him on understanding the difficult situation and finding a way out of it;
3) the existence of explicit and hidden tendencies associated with passion, gender, and other differences between students.

After the empirical investigation, we provided the students with some methods. These methods help them to cope with stress and to avoid mental health issues during the study period.

Our and other author's findings show that most young people do not receive help in situations of mental and moral health problems [63-65]. In the best case, they are assisted at the level of physical health: when the body is already completely exhausted, and the person cannot cope with the problem, "escaping into a disease" (to some extent neurotic). Due to the high prevalence of stress, it is therefore vital to consider existing, familiar, and alternative ways and methods of preventing and correcting pressure. It is crucial to do this directly in the learning process to support the socio-psychological well-being of Kazakhstani youth as teenagers and children. Educational institutions should actively and purposefully contribute to strengthening citizens' physical, mental, and moral health, identify health problems, and intervene as early as possible to prevent serious problems. It is essential to pay attention to both children and young people in distress [61]. As for the adverse effects of stress at the intrapersonal, interpersonal, and bodily levels for medical and social workers, psychologists, and educators (health care workers, health and safety workers, primary, secondary, and higher education, etc.), it is essential to master the set of methods to deal with stress and train them to their clients. Ways of coping with stress apply not only to people with diseases of the body, soul, and spirit, not only to people with physical, mental, and moral disorders, but also to healthy people [66], for it was proved that when education is added to everyday practice, methods of prevention, correction, and post-stress stress come as a productive and effective tool to improve health and protection throughout life, to

improve the health of the whole nation (improve the quality of the human, cultural capital of the country: bodily capital, personal capital, social capital). Health promotion can be carried out by developing and applying technologies and programs of preventive, corrective, and post-intervention interventions to reduce or prevent distress, using stressful situations to develop a person and society, not their degradation. Such programs and technologies will contribute to the health and well-being of the whole community [65].

Stress in an educational institution can be controlled by introducing a stress management course and the participation of schoolchildren and students in extracurricular physical, mental, and other forms of productive joint activities, including studying methods for preventing and correcting stress. Many methods of correction and prevention of pressure are easy to learn and applicable in practice. They also give good results when working with children, adolescents, and youths in training and education.

The study results showed that students consider it necessary to conduct one-time seminars, lecture classes, and even entire courses on preventing and correcting stress and its consequences. They believe these classes should take place within the framework of compulsory rather than additional education. They are needed to help schoolchildren and students cope with stress and avoid mental health problems and other negative consequences of school and further stress. Students need to reduce anxiety and stress about precarious, personal, and interpersonal situations to be acquainted with ways to prevent and combat stress. Stress management should be structured, systematically organized, instrumental, and technologically ensured. In our empirical study, stress questionnaires were proposed to representatives of different groups of students at three Kazakhstan universities. The study results showed that students need effective and productive methods for preventing and correcting stress and distress in education. They are required to deal with stress while studying successfully.

Notably, students made very few mentions (8%, an almost random result) of the “digital world.” Despite the general digitalization of life, people's most important problems and difficulties lie in the plane of real, not virtual life. Messengers, etc., do not significantly impact a person’s state and solving problems without factual support and the same genuine efforts of the person to search and implement measures and techniques of help and self-help for himself and others in a state of stress.

6. Methods for Stress Management

Many contemporary works widely represent different techniques and methods of minimizing, preventing, and correcting stress and its consequences. However, in most of them, there is no explanation about the context, the atmosphere conditions, or any characteristic to be considered. These techniques can be helpful and pertinent to reducing stress, but not everything works in all contexts and situations (students and teachers conditions included). Therefore, one of the objectives of our study was the analysis of these methods in terms of the relevance of their use by students and teachers.

There are two main approaches to overcoming stress during and in educational processes: indirect or online communication (courses) and personal communication (didactic, consulting, etc.). There are other options. For example, with the help of the Canadian Mental Health Commission, an interactive website has been created in the country [61]. It contains several

courses, including meditation (yoga), music therapy, and other means of music that help relieve stress. Online lessons for parents and students are very productive online. The Canadian database can search for all anti-stress techniques, programs, and events on the Canadian Internet and the global Internet in general. It was created to help school and university councils learn about existing events, technologies, etc., across the country and beyond.

Contact with the body is one of the most essential and primary contacts that ensure everyone else students need to start studying with them.

6.1 Breathing Techniques: Contact with the Body

Breathing techniques are instrumental and effective for preventing and removing stress, particularly hatha yoga and "deep breathing". They relieve tension in the body and purify the mind, thereby improving both physical and mental health. Usually, people breathe shallowly or, under severe stress, even hold their breath. However, the more oxygen the body receives, the less stressful and disturbing the person becomes. This type of breathing is “diaphragmatic breathing” [11]. Diaphragmatic breathing: Intuitively used for development and relaxation in many cultures over the centuries. It was an essential part of the various traditions of yoga. Now, it is included in many modern relaxation programs. Such breathing is accompanied by an experience of vigor and vivacity [45, 65, 67].

One of the universal and straightforward techniques available to students in a situation of purely physical and psychological stress, for example, during examinations, is relaxation.

6.2 Progressive Muscle Relaxation (PMR): Contact with the Body

This technique, invented by E. Jacobson early [66], is effortless and works well to escape high-level stress. The method consists of alternately tensing and relaxing the muscles [65]. Starting with the first (see cartoon), the powers of the whole body are treated step by step after the following "three-step": "Tension holds the tension for about 4-5 or more seconds then relax”.

E. Jacobson argued that since muscle tension accompanies anxiety, one can reduce anxiety by learning how to relax the muscular tension. PMR entails a physical and mental component [44, 65]. The cognitive feature requires the individual to focus on the distinction between The purpose of this technique is to teach the patient how to relax more fully in a short time [65].

6.3 Results

The long-term benefits of MTCT include the following: lowering the level of cortisol in the body and reducing generalized anxiety, lowering blood pressure and heart rate, improving heart control, reducing headaches and other pains of overstrain and exhaustion, relieving feelings of fatigue, and overall improving the quality of life patients with different types of diseases at various stages of treatment (including the postoperative period).

Other productive stress management methods include autogenous training, including yoga, hatha yoga exercises, complex exercise systems (energy, physiological and psychological) such as the Eye of Renaissance, and meditations of various types and orientations. Meditation is a technique related to a person’s ability to manage himself, his ability, and readiness for extensive self-knowledge. Unlike relaxation, meditation can be used at the advanced stages of working with

stress. Common in both meditative and other forms of breathing management practices ("deep breathing" and others). We can name a number of other productive and effective practices. Thus, sensory integration or reintegration methods are very useful in that reintegration will connect a person with the inner and outer world, including internal and external balance. Contact with nature and its "elements" inside and out self (especially connection with nature, its flora and fauna) this is nature-therapy. Contact with arts (this is art therapy) is a method of psycho-correction and psycho-prophylaxis, as well as a method of psycho-action, which is based on the use of various types of art to improve the psychological, physical, and moral state of a person. Integrative practices are also interesting (for example, shamanic ecotherapy practices, eco-art therapy, and other models and technologies).

6.4 Meditation: Contact with Inner Self

Meditation develops awareness and attentiveness. It calms and relaxes, gives strength, and redirects. Therefore, it acts as one of the most productive and effective means of reducing and preventing stress, anxiety, asthenia, the impasse of development and hopelessness, depression, disbelief in oneself and the world, hopelessness, and other destructive states. Awareness or attentiveness is the quality of full involvement at the present moment ("here and now"), without additional reflexive rethinking or analysis of experience, without introducing other people's stereotypes and expectations of the past and future. Mindfulness or awareness is needed so as not to worry about the future, which has not yet arrived and is sometimes unrealistic, or dwell on the misunderstood or the past. Meditation develops awareness of the present, presence in a specific situation, interaction with specific people (rather than phantoms), shifting attention to what is happening now and here. Meditation is not just a cursory focus on the present. An effort is required to maintain concentration and bring it back to the present moment when consciousness wanders, or a person begins to drift between the past and future. Regular meditation develops brain regions associated with joy and relaxation, including regulating hormonal metabolism. It provides the prevention of stresses in everyday life, including in conditions of temporary deficiency and interpersonal conflicts, interaction with the devourers (“vampires”) of time, and other human resources in his intimate-personal and educational-professional spheres of life [11]. Combined with yoga breathing, hatha yoga meditations are incredibly productive and effective. They reduce overactivation and imbalances in the body's hormonal system [48, 59].

Contact with yourself will allow you to gather and reorganize internal and external resources to understand what is important and not essential for a person as an individual, partner, or professional.

When a person does not want or cannot relax through deliberate efforts, he is shown ecotherapy. Contact with nature has always helped people find themselves and regain strength, to feel the inner core, often lost in the hustle and bustle of everyday study and work.

Contact with nature helps to renew strength and faith in life, productive and effective in the most complex disorders, depression, and weakness.

6.5 Ecotherapy: Contact with Nature

Ecotherapy, also known as natural or green therapy, is an applied practice of ecopsychology developed by T. Roszak and H. Clinebell [68, 69]. Some of the most common types of ecotherapy

are outdoor or nature meditation, horticultural therapy, animal-assisted therapy, physical exercise in a natural environment, involvement in conservation activities, and others**.**

Ecotherapy, or applied ecopsychology, covers a wide range of psychological and complex methods: psychological, physical, and moral healing (T. Roszak, M.E. Gomez, A.D. Kanner, R. Greenway and M. Watkins, B. McKibben, R. Lowe, J. Macy, and others). It is based on the fact that people are inseparable from the rest of nature and supported and developed in a productive, effective, healthy, full-fledged interaction with the Earth. Ecotherapy works as a channel for the physical, psychological, and spiritual development of a person and society in their recovery during periods of stress and change [70-73]. Ecotherapy and ecopsychology are based on the theory of systems and allow people to explore their relationship with nature. At the same time, some specialists teach and practice exclusively ecopsychology and ecotherapy (as independent practices), while other specialists in mental, physical, and moral health integrate aspects of ecotherapy into other existing methods, including art therapy and other techniques. Environmental treatment specialists believe the Earth can self-develop [74-78]. It is carried out through complex systems of integrated balance. When people are harmonious with these systems, they experience improved health. Personal and planetary well-being are closely related at all levels and in all aspects [79-82].

7. Further Considerations

Children, adolescents, and young people spend a significant part of each day in educational institutions. Therefore, school and university communities (formal and informal) become a natural and essential place for the prevention and management of stress and the provision of other mental health services [83, 84]. In this case, the student's parents are usually busy with everyday life, work, and household chores. They lack time and space for genuine communication with their children. However, the students themselves often lead a lifestyle that leads to stress. So, more and more young people spend their free time surfing the Internet, which affects their mental health (M.R. Arpentieva, therefore, introduced the concept of “digital homeless.” These people voluntarily or in the face of circumstances isolated themselves from their families, schools, and communities focused on digital devices, the Internet) [85]. According to M. Saju [86], the Internet is a helpful tool for education, work, social interaction, and entertainment. Still, it is capable of highly destructive effects on physical, mental, and even moral health. Cyber dependence or digital dependence is only the beginning of the flawed process, followed by complete degradation and even death of a person. Excessive use of smartphones, computers, and tablets can disrupt sleep and deform an awake state, distorting feelings, perceptions, values, behaviors, and life in general [87]. In addition to affectionate stresses, digital dependency creates more stress. If left untreated, stress can accumulate, turning into distress [11]. The basis for such an abuse of digital devices, including drug addiction and early dementia, the brutally violent confrontation of an independent person with his family, school (university), and society as a whole, is being laid very quickly. Considering and developing schools and universities as a platform for providing mental health services is essential ([88], p.138).

This raises several important points. If there are programs for protecting mental, physical, and moral health at school or university, several benefits are obtained for students and teachers. For example, the breadth of coverage and assistance: even if a child or youth does not receive formal

mental health services in specialized clinics, then within the framework of an educational program in the context of general class programs and events, he can get the help he needs [89]. In addition, students in school are more likely than children who have come to the clinic to receive the support they need and are less likely to stop treatment [90, 91]. In addition, teachers must teach students in general education classes how to deal with stress and its consequences for physical, mental, and moral health. Students with higher risks of anxiety and post-stress disorders can benefit from observations of more qualified in the field of stress prevention and correction more stable and optimistic peers. They can adopt patterns of good behavior and coping behavior [92]. University and school education of the "health-saving" type facilitates the early detection of difficulties and deviations when they appear for the first time. They encourage post-intervention correction and follow-up when assistance is provided to a child or youth [93]. Such programs can also maximize the positive development of mental health for all children, and not only for those who experience destructive stress and distress for them [94]. Finally, implementing programs to promote mental health and prevention in schools and universities is associated with improving the functioning of the entire educational organization [95, 96]. It increases and stabilizes academic performance and educational process performance [96, 97]. Trying to cope with such problems is a problem that needs to be addressed in future research.

7.1 How to Do Mental Health Promotion?

Programs are generally more effective when skills are taught systematically, class-wide, involving the whole school, and implemented over more than one year. Universal programs can be effective in improving the well-being of children and young adults. The most effective programs for strengthening and maintaining mental health involve harmonizing and enriching the human environment. It is evident, for example, the healing effect of active recreation in nature: in a forest or other water area, on the shore of a reservoir, etc. Many studies have shown that such activities can improve mental health.

Strategies such as school-based peer identification and response training (how to recognize risk and promote help-seeking), family support, appropriate skills development, and professional training for the mental health of staff and educators appear helpful. Early identification and treatment of mental health problems are critical components of suicide prevention [61].

The number of young people who committed suicide in Kazakhstan recently [98]. Study schedules, especially in universities, are very challenging. The act of combining a busy life with education causes stress and depression. Limited focus is beneficial and can lead to excellent performance. However, uncontrolled pressure can lead to exhaustion, depression, and several other sicknesses. College students are prone to episodic stress. This happens when exams are around the corner. Anxiety and depression also occur when getting ready for a presentation or an interview. At these times, some students contemplate or even commit suicide [11]. In Kazakhstan today, suicide of young people is a severe problem. There is a higher chance of a young person dying by their hand than there is of them being murdered.

Tragically, on average, thousands of people commit suicide a year, Kazakhstan is among the top ten countries in the world regarding suicides, and there are many suicides in Russia. In 2012, the country took ninth place in suicides by young people, including many children. From 2007 to 2012, the figures fell somewhat, but in 2015, there was an increase in fifth. According to the Minister of

Religious Affairs and Civil Society, N. Yermekbayev, nine out of ten teenagers who commit suicide do it not to kill themselves but to have their problems heard. It is a cry for help, but tragically, at this point, the use can never be given [99].

Our educators must be the ones to prevent this catastrophic and distressing situation. Professionals who work in educational organizations must be made aware of the terrible possibilities and be made to look for warning signs in their students. Most mental health problems can be detected prior to the age of a quarter of a century, and half of these difficulties surface before the age of teenager [100].

To solve these problems, productive and effective assistance programs combine traditional and non-traditional educational and other technologies, including role-playing games, training, and consultations [101, 102]. Notably, role-playing games contribute to socialization and adaptation to life situations [103]. Adventure role plays help prevent stress-related problems. By absorbing the exceptional experience of overcoming all adverse effects, it is not just a restart but also a gambling experience, and this is an opportunity to overcome adverse events in real life situations. Another study at the University of Miami by Hollar (Beck, 2016) ([104], p.18) showed, that short interruptions (10–15 min) of lessons, filled with some physical exercises, led to better performances in mathematics and language courses. A long-term study at the Universities Glasgow and Dundee on 5000 pupils ([104], p.18) showed, that regular physical exercise from the age of 11 until 16 improved marks in English, mathematics and sciences. The California Department of Education found, that higher cognitive processes (steered by hippocampus and prefrontal cortex) were improved by physical fitness [105]. Running, riding bicycles, swimming etc. increased creativity, shown by a study of Stanford University [106].

Encouraging results made by the Mental Health Commission of Canada for mental health promotion activities such as skills training, role-playing, positive feedback, modeling, and self-reflection give the following warranty: Social skills training or social learning as a whole can be effective in bolstering students' coping ability, and in addressing an array of emotional, cognitive and behavioral problems. In addition, social learning stress coping (correction), prevention, and postvention are associated with enhanced academic achievement [96].

8. Recommendations

This article also features recommendations about positive mental health knowledge-sharing practices and activities. Hopefully, more educational organizations, from kindergarten to high schools and especially to universities, will actively promote the social-emotional well-being of Kazakhstan's young people. There is sufficient research on mental health in educational establishments from kindergarten to University to implement policies and practices for boosting and monitoring the mental health of the young generation of Kazakhstan. The culminating results of the research work point to an urgent need for attention to organizational conditions for effective school mental health at the provincial, district, and school/community levels. Administrative requirements include a proper educational plan, protocols for decision-making, systematic training, role clarity, implementation, collaboration, and system communication. Ensuring adequate numbers of trained mental health professionals in schools is also part of this required commitment if we are to be successful across the continuum of care. Systematic professional training in mental health is essential for all educators and students.

A careful evaluation of untested but research-based approaches is needed here. More foundational research is required in specific areas, most critically, substance abuse prevention and intervention in schools, suicide prevention, and educator mental health literacy and mental health for schools with special populations.

Because schools are an excellent place to promote positive mental health, more needs to be done to take advantage of the growing number of school/community partnerships, coalitions, and networks focused on moving the field forward. Inclusive partnerships also must include the meaningful participation of young people and their families.

Investment in evidence-informed mental health promotion (within a school context). This includes a method for organizing the current patchwork of mental health programs in class programming [107].

Having positive relationships with those around you during the educational process is paramount as it helps reduce stress in the classroom. Good communication plays a key role in the academic environment, and good educators must make it their business to be aware of the mental states of their students. To reduce stress levels in the educational system, many stress management techniques are recommended for students and teachers to do in a classroom [108, 109].

9. Conclusions

In summary, it is worth noting that stress is an inevitable part of student life. However, research has found clear evidence for the effectiveness of activities during lessons for positive mental health promotion, prevention, and treatment of internalizing and externalizing disorders. An essential element for success is the match between the program and the needs and resources of the setting. There is insufficient evidence to provide direction for special populations, such as specific cultures, clinical conditions, or a targeted age group. In addition, to be effective, the personnel needs training and support to ensure that strategies are delivered with fidelity to the original program’s methodology. Finally, programs require monitoring processes and outcomes to ensure they achieve the desired results or require modification for the local context. Successful implementation requires dedicated leadership, proper organization preparation, ongoing support for implementation, treatment integrity, and evaluation of program outcomes.

Current scientific ideas support the notion that stress management techniques can lower the organism's stress levels, reduce disease symptoms, lower biological indicators of disease, and prevent life. As stress is universal and relevant to all, a more thorough understanding of stress management techniques is essential for avoiding stress-related diseases and enhancing overall health. It is concluded that progressive muscle relaxation and diaphragmatic breathing are all effective treatment methods for reducing the stress and anxiety that accompany daily life and chronic illness. The stress reduction techniques reviewed in this paper also improve students' quality of life and, in many cases, contribute to the reduction of disease symptoms. The same techniques are also therapeutic for teachers to enhance student interactions. No adverse side effects from any of those techniques have been documented. However, the literature shows a need for more extensive control trials of the stress-reduction techniques mentioned above to establish their usefulness in prevention and stress management during studies.

It would be helpful in future studies to consider the extent to which stress management techniques have contributed to students' academic performance.

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