PSYCHOSOCIAL FACTORS AMONG TEACHERS

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Abstract

In the professional environment, psychosocial risk factors are related to mental health issues, illustrated by structural aspects of the workplace and operational methodologies that can impact the mental well-being of educators. Teachers' mental well-being profoundly affects cognitive processes, interpersonal communication, educational achievement, and personal development. A state of well-being promotes resilience and enhanced self-confidence, constituting essential components for active engagement in social and professional spheres. The study analyzed psychosocial factors such as role conflicts, material support for teachers regarding technological equipment, teaching resources, unlimited access to software programs, and high-speed Internet. Factors related to the professional training of teachers to use software products and hardware and retraining training to work in emergencies, such as the COVID-19 pandemic, have also been studied. The trend is to improve the situation in terms of technological equipment and professional learning, although some of the teachers experienced some difficulties in using the software and hardware. The second aspect of research is stressogenic factors such as mental and emotional exhaustion, which are directly related to burnout, which is at medium to low levels. The results of the Maslach test showed a low percentage of burnout among Bulgarian teachers, which is a positive phenomenon regarding teachers' mental health.

Keywords: *psychosocial risk factors, teachers, occupational stress, burnout*

1. INTRODUCTION

According to the International Occupational Safety and Health Organization (ILO) definition of psychosocial factors [1] is expressed through the interaction between the work environment, job content, organizational conditions, and worker needs. Psychosocial factors consist of elements characterized by social structures and processes and are influenced by the perceptions and experiences of the individual. These elements include physiological, psychological, and social mechanisms triggered by psychosocial factors such as hormonal disruption, increased anxiety levels, and risk-taking tendencies; the likelihood of developing a mental or physical illness rises; there is a decrease in self-esteem, satisfaction, and quality of life in general; diverse aspects of the health system, covering health promotion strategies and the efficacy of health interventions [2].

Objective: To explore teachers' mental health by analyzing the psychosocial factors of the work environment in distance and face-to-face learning.

2. MATERIALS AND METHODS

Teachers from primary, secondary, vocational schools, and high schools in 6 regions in Bulgaria: Northeast (regions: Varna, Dobrich, Tagovishte, and Shumen), North Central (regions: Veliko Tarnovo, Gabrovo, Razgrad, Ruse, and Silistra), North-West regions: Vidin, Vratsa, Lovech, Montana, and Pleven), South-Eastern (regions: Burgas, Sliven, Yambol and Stara), South-Central (regions: Kardjali, Pazardzhik, Plovdiv, Smolyan and Haskovo and South-Western (regions: Blagoevgrad, Kyustendil, Pernik, Sofia- city). The sample consisted of all teachers who completed the online Google survey card form and the paper form. A questionnaire was used to study the psychosocial factors of the work environment, and a Burnout test according to the Maslach methodology was used to assess their mental health. The study was conducted from November 2023 to January 2024.

For this study, two questionnaires were used and divided into separate groups. In the first part, the teachers evaluate the psychosocial factors of the work environment. For this purpose, a 5-point scale is used, with 1 being the lowest manifestation and 5 being the highest manifestation. Possible answers are: 1- Not at all affected, 2- Not affected, 3- Neither affected nor not, 4- Affected and 5- Extremely affected. Work environment factors are compared for two periods: a face-to-face learning period and a distance learning period, with the main idea being to compare classroom learning and distance learning that took place during the COVID-19 pandemic.

In the second part, a questionnaire was used to analyze the psychosocial factors of the working environment and teachers' mental health in the country. The questionnaire is divided into two subsections expressing the main stressful factors of the work process and a Maslach test to determine the level of mental and emotional exhaustion of teachers, the so-called burnout. Burnout syndrome is a state of complete physical, emotional, and mental exhaustion, characterized by chronic fatigue, feelings of helplessness and hopelessness, development of negative self-perception, and negative attitude towards work, others, and life in general. It is caused by extreme and prolonged physical or mental exertion or overexertion. It is accompanied by cynicism, social isolation, and reduced work capacity [3].

The main focus of this research is to examine teachers' mental health during the COVID-19 pandemic by analyzing the psychosocial factors of the work environment. Three aspects of the burnout syndrome are discussed. The first aspect is Emotional Empowerment – it manifests when our emotional self is blackened. The result is a general feeling of tiredness, insensitivity, fatigue, painlessness, insomnia, and physical and mental pain. The combination of physical and mental exhaustion is crucial. There needs to be more than physical overwork for the so-called professional burnout. The second aspect investigated is dehumanization, which is expressed in the tendency towards cognitive and social dehumanization and withdrawal. Teachers suffering from burnout tend to perceive the people around them as objects rather than individuals (subjects). The last but not least important element is workability. The third component of professional burnout is the reduction in personal achievements or individual productivity. A 7-point scale from 0 to 6 was used, with 0 being the lowest and six being the highest. The scale's definitions are as follows: 0—never, 1—once a year or less, 2—once a month, 3—several times a month, 4—once a week, 5—several times a week, and 6—every day.

Health and mental well-being challenges include psychosocial stressors encountered in various domains, such as the workplace, family environment, and social interactions. These stressors affect health and self-esteem through four interrelated mechanisms: emotional, cognitive, behavioral, and physiological. They are a significant predictor of the development of severe mental and physical illnesses.

Statistical methods: Cronbach's alpha; Descriptive Statistics: Relative Frequency, Arithmetic Mean ± Standard Deviation and Median; Kolmogorov-Smirnov method; Z coefficient (Wilcoxon method).

3. RESULTS AND DISCUSSIONS

The survey included 146 teachers, 82.9% of whom were women and 17.1% of whom were men. The oldest respondents accounted for 9.2%, while the youngest were only 1.4%.

Among the most essential psychosocial stressors encountered in the professional setting are high workload along with fast pace of work, monotony of work task performance, role conflicts and communication problems, limited social interactions, insufficient support from supervisors, strained interpersonal relationships, workplace harassment (psychological terror), lack of motivation for professional development and upskilling, flexible working hours, limited participation of employees in decision-making processes, material security, vocational training related to technology and threat of unemployment [4]. Of the above-mentioned psychosocial factors of the work environment, only some of them are the object of research, such as role conflicts and communication problems with management and colleagues, material security in terms of work and access to a computer, vocational training in ICT and digital skills, and research on the mental health of teachers through the elements of the burnout test, namely Emotional Exhaustion, Dehumanization, and Performance.

A study in Japan during the pandemic showed that the highest scores were related to interpersonal relationships and conflict situations in the school setting. Teaching is considered one of the most stressful occupations. Teachers experience difficulties communicating with students, their colleagues, management units, and students' parents. The results show that elementary school teachers are more affected by burnout and show extremely high levels of occupational stress than those in high schools or colleges. Also, most teachers suffer from a lack of support, which further increases their stress levels and impairs their well-being. The results reveal that one of the main stressful factors in teachers' work environments is emotional and mental exhaustion, which is also the main characteristic of burnout [5].

The highest percentage for the indicator Communication problems has the answer: I have often had complaints with 24.6%, followed by I have never had complaints with 23.9%, and the average percentage remains for Sometimes I have, sometimes I don't.

The results obtained from our survey show that for the indicator Impact of Mental Overstrain during distance learning, the percentage of Extremely has influence is the highest, at 44.1%, followed by has influence, with 38.6%. The neutral answer has an average level: Neither has influence nor does not have influence, with 6.9%. For the other item related to professional burnout, Impact of Emotional Overstrain during distance learning, the highest percentage is obtained by Affects 39.4%, followed by Extremely Affects 37.3%. The average value for Neither impact nor impact is 11.3%. Technology is a significant factor in providing quality education. Challenges for teachers during distance learning are related to the need for technological equipment, provision of classrooms for the smooth running of the learning process, access to learning resources, professional training related to the correct use of hardware and software products, support from the school guidance on providing retraining courses during a pandemic [6].

The highest percentage of 58.3% for distance learning teachers in The impact of working with computers is seen in the response Extremely influences, followed by it does influence, which is 27.1%, and the low values, 4.9%, are distributed evenly for Neither impact nor impact and Not impact at all. According to the indicator Provision of Classrooms during distance learning, the highest percentage is High with 38.4%, followed by Very High with 33.8%. The opinions in descending order are expressed as follows: neutral response with 15.9% and low, respectively, 7.6% and very low at 4.1%.

A review of the literature on providing software programs to teachers during online learning indicates that the majority of teachers utilize them in their daily work. Educators face high or low problems: 14.4%, followed by Low with 10.3%, and last with 7.5%, which is deficient provision.

The European Commission's annual review of the period of the COVID-19 pandemic found that the digital skills of teachers and the provision of quality education are suffering serious difficulties. Highly developed countries such as Denmark, Finland, and Estonia have received European funding, enabling teachers to acquire digital skills from 2016 to 2020. Statistical information shows that very few teachers in the EU have ICT in place, training, or additional courses in their curricula [7].

Regarding the indicator Training related to teaching during distance learning, the highest percentage is High with 43.1%, followed by Neither low nor high with 20.1%, and the remaining percentages are distributed as follows: 17.4% for Very High, 11.8% is for Low, and the last lowest percentage is for the response Very Low. For the other indicator, the provision of retraining courses during distance learning, which is linked to the previous one, the highest percentage indicates "High" at 37.5%, followed by "Neither low nor high" at 21.5%. The next ranking is for the opinion of low collateral at 16.7%, followed closely by very low at 12.5% and very high at 11.8%. The following ranking is for the opinion of low providing at 16.7%, followed closely by very low at 12.5% and high at 11.8%. The last related indicator is the provision of learning materials during distance learning, with the highest percentage being high at 36.8%, followed by neither low nor high at 23.6%. The score for very low collateral is 14.6%, and the remaining two, low and very high, have equal percentages of 12.5%. However, during face-to-face training, the situation looked much different. The highest percentage for the indicator Communication problems during face-to-face training is the answer Never had complaints, 32.6%, followed by Rarely had complaints, 25.5%, and the average level is Sometimes I have, sometimes I don't have complaints, 24, 1%.

The following results are for the indicators that have a direct relationship with professional stress in teachers: the Impact of Mental Overstrain during face-to-face training and the Impact of Emotional Overstrain during face-to-face training. In the first indicator, 42.4% of the opinions consider the indicator to be "Influential," followed by 41% considering it "Extremely Influential," and 10.4% expressing a "Neutral" stance. As for the second indicator, 47.9% find it "Extremely Influential," 41% find it "Influential," and 6.3% consider it "Neither Influential nor Non-influential.". For the indicator Impact of working with a computer during face-to-face training, the highest percentage is for Impact, with 41.8%, followed by Extreme Impact, with 20.6%. The next position is 18.4% - Neither influence nor influence, and the remaining 14.2% have No influence and No influence at all with 5%. According to the indicator Provision of classrooms during face-to-face learning, most related to access to a computer and reliable Internet service by students, especially for those who live on the outskirts of large cities [8].

The highest percentage for the indicator provision of Software —Distance Learning Programs is 42.8%, followed by Neither High nor Low with 22.8% and Very High with 22.1%. The remaining percentages refer to Low with 7.6%, and Very Low with 4.8%.

According to the next similar indicator, Provision of Hardware—computers during distance learning, the highest percentage of 39% is occupied by the High, followed by the Very High with 27.4%. The remaining percentages refer to the neutral, namely Not a High percentage, which has a High rating of 40%, followed by Very High with 39.3%. Neutral Neither High nor Low has 14.5%, and Low and Very Low have percentages of 3.4% and 2.8%, respectively.

The following are the results of the material security indicators: security with software products - programs based on on-site training and security with hardware - computers. The highest percentage for the first indicator is High, 43.2%, followed by Very high, 22.6%. The average value is for the neutral Neither high nor low, 19.9%. According to the second indicator, the highest percentage is for the High rating, 43.8%, followed by Very high, 31.5% and the average percentage is again for the neutral Neither high nor low, 16.4%. The following indicators are closely related to each other as they pertain to in-service teaching training and retraining courses. According to the first indicator, the highest percentage is occupied by the High, with 39.3%, and the following highest percentage is for the Very High, with 27.6%. The average value of 22.1% remains again for Neither Low nor High. The next indicator already mentioned related to Retraining Courses has the highest rate for High Rating with 34%, followed this time by the neutral Neither High nor Low with 25%, and the average is for Very High with 22.9%. Regarding the provision of learning materials during on-site education, the situation is as follows: 37.9% of the high percentage are occupied by the High, followed by neither high nor low with 25.5%, and the average percentage for the very high is 20%. There is insufficient evidence of a difference in teachers' assessment of the impact of Mental Overstrain during distance and face-to-face learning. (Z of Wilcoxon Signed Ranks Test = 0.097, $p = 0.923 > 0.05$)

A statistically significant difference was found in the teachers' assessment of the impact of Emotional Overstrain during distance and face-to-face learning. (Wilcoxon Signed Ranks Test $Z = 3.436$, $p = 0.0006 < 0.05$). A statistically significant difference was proven in the teachers' assessment of the influence of working with computers during distance and face-to-face learning. (Wilcoxon Signed Ranks Test $Z = 5.802$, $p = 0.000000007 < 0.05$).

No difference was found between the provision of Software products during distance and face-to-face training (Z on Wilcoxon Signed Ranks Test = 0.147, $p = 0.883 > 0.05$).

A statistically significant difference was revealed in the hardware provision of teachers during distance and face-to-face learning. (Wilcoxon Signed Ranks Test $Z = 3.336$, $p = 0.001 < 0.05$).

A statistically significant difference in the provision of training related to teaching during distance and face-to-face learning was proven. (Wilcoxon Signed Ranks Test $Z = 3.919$, $p = 0.0001 < 0.05$).

There is a statistically significant difference in the provision of retraining courses during distance and face-to-face education. (Wilcoxon Signed Ranks Test $Z = 4.551$, $p = 0.00001 < 0.05$).

There is a statistically significant difference in the provision of Learning Materials during distance and face-to-face learning. (Wilcoxon Signed Ranks Test Z = 5.091, p = 0.0000004 < 0.05).

It's important to note that all of the above psychosocial factors play a significant role in influencing professional stress and the occurrence of burnout among teachers. Numerous international studies have investigated the level of burnout in the teaching profession. It has been scientifically proven that burnout is a universally recognized global problem, an essential element of this profession, and a sign of its stressful nature. The literature, however, is yet to provide a definitive answer on whether burnout is a momentary state or a prolonged state.[9].

Results obtained from completing the Maslach burnout test show that Bulgarian teachers have moderate to low levels of burnout syndrome. This shows that social and family support combined with the work-life balance factor plays a positive role in teachers' well-being.

The Kolmogorov-Smirnov test reports a Normal distribution for the subscales: Emotional Empowerment (Z=0.705, p = 0.702 > 0.05) and Work Capacity (Z=0.971, p = 0.302 > 0.05) and for General Burnout (Z=0.626, p = 0.827 > 0.05), and different from the Normal distribution for Dehumanization (Z=2.56, p = 0.000004 < 0.05).

The term Quality of working life is widely applied in psychology and occupational hygiene. It refers to the comforts and favorable conditions of the work environment for the individual. Quality of work life is related to both Work Capacity and Emotional Exhaustion and Dehumanization [10].

The arithmetic mean value of Emotional Power among teachers is 24.95 ± 11.356, which is within the range of moderate frequency and low to moderate intensity. The mean level of Dehumanization among teachers is 2.00 and indicates low frequency and low intensity.

The arithmetic mean value of Work Capacity among teachers is 36.42 ± 6.683, which is within the range of moderate frequency and low to moderate intensity. The arithmetic mean of Total Burnout had a negative value: -1.04 ± 2.159 among teachers, indicating a tendency for low frequency and low to moderate intensity.

4. CONCLUSIONS

For the Education sector to deal with work-related psychosocial factors, it is necessary to implement control and monitoring programs in schools that contribute to reducing mental tension and stress in the workplace. The programs must be developed collaboratively with the school management according to the educational institution's needs. The following indicators should be improved: the psychological environment of the work activity, task redistribution, improvement of communication in the organization, professional support from the management board, and increase of the individual abilities of the teachers to deal with potential stressors through various burnout prevention and management stress techniques.

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