

ТЕОРІЯ, МЕТОДОЛОГІЯ ТА ІСТОРІЯ ПСИХОЛОГІЇ

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COGNITIVE FACTORS OF PROFESSIONAL WELL- BEING OF IT- PROFESSIONALS

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Relevance of the study. The modern professional space is increasingly focused on intensity, efficiency and constant readiness for change. In many areas of activity, in particular in the field of information technology, there is an increase in the level of professional requirements, which is due to growing competition, rapid updating of knowledge and the



need to complete tasks in a short time. For IT specialists, specific stress factors include a high level of cognitive load due to multitasking, rapid change in technologies, the need for constant professional self-development, work under time constraints and high responsibility for the result. In scientific discourse, the concept of professional well-being is gaining more and more attention, which goes beyond purely physiological or psychological comfort and includes a deep sense of satisfaction with professional activities, a harmonious combination of work and personal life, the realization of one's own potential and a sense of meaning in work.

The aim of the article is to create a theoretical model of cognitive resources of professional well-being in conditions of high demands on activity.

Conclusions. The theoretical analysis made it possible to substantiate that cognitive resources play a decisive role in maintaining professional well-being in conditions of high demands on activity. The proposed model includes deep (basic) beliefs, thinking strategies, attributive style, self-efficacy, cognitive flexibility, metacognitive awareness and reflexivity. Each of these resources performs specific functions that, in interaction, form the ability of an individual to effectively adapt to professional challenges, maintain emotional balance, maintain high motivation and performance. The theoretical substantiation of the model creates a basis for the development of targeted psychological programs for the development of cognitive resources in IT specialists, which will contribute to increasing their stress resistance and level of professional well-being.

***Keywords:** professional well-being, cognitive factors, thinking strategies, attributive style, optimism, self-efficacy, cognitive flexibility, meta-cognitive awareness, reflectivity, IT professionals.*

Когнітивні чинники професійного благополуччя фахівців ІТ-сфери

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Актуальність дослідження. Сучасний професійний простір дедалі більше орієнтований на інтенсивність, результативність та постійну готовність до змін. У багатьох сферах діяльності, зокрема у галузі інформаційних технологій, спостерігається підвищення рівня професійних вимог, що зумовлено зростаючою конкуренцією, швидким оновленням знань та необхідністю виконання завдань у стислі терміни.

У фахівців IT-сфери специфічні стрес-фактори включають високий рівень когнітивного навантаження через багатозадачність, швидку зміну технологій, необхідність постійного професійного саморозвитку, роботу в умовах часових обмежень і високої відповідальності за результат.

У науковому дискурсі дедалі більшої уваги набуває поняття професійного благополуччя, яке виходить за межі суто фізіологічного чи психологічного комфорту і включає глибинне відчуття задоволеності професійною діяльністю, гармонійного поєднання роботи та особистого життя, реалізації власного потенціалу та відчуття сенсу праці.

Метою статті є побудова теоретичної моделі когнітивних ресурсів професійного благополуччя в умовах високих вимог до діяльності.

Висновки. Проведений теоретичний аналіз дозволив обґрунтувати, що когнітивні ресурси відіграють визначальну роль у підтриманні професійного благополуччя в умовах високих вимог до діяльності. До складу запропонованої моделі увійшли глибинні (базові) переконання, мисленеві стратегії, атрибутивний стиль,

самоефективність, когнітивна гнучкість, метакогнітивна усвідомленість та рефлексивність. Кожен із цих ресурсів виконує специфічні функції, які у взаємодії формують здатність особистості ефективно адаптуватися до професійних викликів, зберігати емоційну рівновагу, підтримувати високу мотивацію та результативність. Теоретичне обґрунтування моделі створює підґрунтя для розроблення цілеспрямованих психологічних програм розвитку когнітивних ресурсів у фахівців IT-сфери, що сприятиме підвищенню їхньої стресостійкості та рівня професійного благополуччя.

Ключові слова: професійне благополуччя, когнітивні чинники, мисленнєві стратегії, атрибутивний стиль, оптимізм, самоефективність, когнітивна гнучкість, мета-когнітивна усвідомленість, рефлексивність, IT-фахівці.

Introduction. The modern professional space is increasingly focused on intensity, efficiency and constant readiness for change. In many areas of activity, in particular in the field of information technology, there is an increase in the level of professional requirements, which is due to growing competition, rapid updating of knowledge and the need to complete tasks in a short time. For IT specialists, specific stress factors include a high level of cognitive load due to multitasking, rapid change in technologies, the need for constant professional self-development, work under time constraints and high responsibility for the result. In scientific discourse, the concept of professional well-being is gaining more and more attention, which goes beyond purely physiological or psychological comfort and includes a deep sense of satisfaction with professional activities, a harmonious combination of work and personal life, the realization of one's own potential and a sense of meaning in work. According to modern models (Bakker & Demerouti, E. 2008, Diener, Oishi, & Lucas, 2009, Harter, Schmidt, & Keyes, 2003, Robertson, & Cooper, 2011, Warr, 2007), Professional well-being is shaped by a wide range of factors – from working conditions to individual psychological characteristics.



The **aim** of the article is to create a theoretical model of cognitive resources of professional well-being in conditions of high demands on activity.

Results. The proposed model of cognitive resources of stress resistance and professional well-being in conditions of high demands on activity integrates key mental factors that ensure the ability of an individual to effectively adapt to stressful influences, maintain productivity, and maintain psychological balance: deep (basic) beliefs, thinking strategies, attributive style, self-efficacy, cognitive flexibility, meta-cognitive awareness, and reflexivity.

1. Deep (basic) beliefs are fundamental ideas of an individual about himself, other people and the world in general, which determine the attitude to life situations and the level of confidence in one's own capabilities. They perform the function of a cognitive filter through which events are interpreted and set the general tone of reactions to stress. These ideas are conceptually consistent with the approach of R. Janoff-Bulman, who in her theory describes basic beliefs as deep schemes about the benevolence of the world, the meaningfulness of events and one's own value, which are formed in the process of life experience. According to this concept, stressful or traumatic events can disrupt the integrity of these assumptions, which leads to a crisis of worldview and a decrease in psychological stability. At the same time, the restoration or reconstruction of basic beliefs is an important mechanism for increasing stress resistance and maintaining professional well-being (Janoff-Bulman, 1989).

In the context of high demands on activity, deep (basic) beliefs act as the core of the cognitive system, which determines the strategies for perceiving, assessing and overcoming stress factors. They form the basis for choosing interpretations of events, the level of confidence in one's own ability to influence the situation and maintain control in difficult circumstances. In a professional environment where constant tension, competition and rapid changes are the norm, it is stable and adaptive basic beliefs that allow to



reduce the impact of negative emotions, maintain motivation and orientation towards achievements. Thus, they are a key cognitive resource that ensures the integration of experience, forms resilient behavior and contributes to the preservation of professional well-being even in the most difficult work situations.

2. Thinking strategies are individual ways of processing information, choosing and making decisions, and forming reactions in complex or uncertain circumstances. They include both rational-analytical and intuitive approaches to solving problems, determining the speed and quality of adaptive solutions. In the context of cognitive factors, the concept of A. Harrison and R. Bremson is indicative, who identified characteristic thinking styles that affect the effectiveness of solving problems and interpersonal interaction. The authors described five main styles (synthesizer, idealist, pragmatist, analyst and realist), each of which differs in priorities in information processing, approaches to decision-making and tolerance for uncertainty (Harrison, & Bramson, 1984).

In situations characterized by high demands on activity, thinking strategies become a key cognitive resource, as they determine the ability of a specialist to quickly navigate the information flow, effectively choose ways to respond, and predict the consequences of decisions made. A high level of flexibility in using different strategies allows you to minimize the impact of stress, maintain concentration and productivity even in unpredictable circumstances. For IT specialists, this means quickly adapting work approaches to changes in technology and project requirements. Thus, thinking strategies are an important tool for integrating knowledge and experience into behavioral decisions, which directly affects stress resistance and maintaining professional well-being.

3. Attributional style – stable features of the interpretation of the causes of events, reflecting the level of optimism or pessimism. A significant contribution to the study of attributional styles was made by M. Seligman, who, within the framework of the theory of

“learned optimism”, showed that people with an optimistic style tend to attribute successes to internal, stable and global causes, and failures to external, unstable and specific factors. In contrast, the pessimistic style is characterized by the reverse interpretation, which reduces motivation and the ability to overcome difficulties (Seligman, 2011).

In conditions of high demands on activity, the attributive style determines not only the nature of emotional reactions to professional challenges, but also the willingness to remain active and purposeful after failures. An optimistic style helps maintain motivation, restore psychological balance more quickly, and mobilize internal resources for further actions, while a pessimistic style increases the risk of emotional exhaustion and loss of productivity. For IT specialists, an adaptive attributive style reduces the impact of errors or technical failures on the overall level of confidence and work efficiency. Thus, the attributive style is an important cognitive resource that directly affects professional well-being in conditions of constant challenges.

4. Self-efficacy is confidence in one's own ability to successfully cope with difficulties and influence the course of events. It is a key cognitive resource that determines motivation to act, resistance to failure, and the ability to maintain productivity under stressful conditions. As already noted, the author of the concept of self-efficacy, A. Bandura, considered it as a central mechanism of self-regulation that influences the choice of goals, the level of effort, and persistence in overcoming difficulties (Bandura, 1977).

In professional fields with high demands on performance, self-efficacy plays a crucial role in an individual's ability not only to overcome difficult tasks, but also to maintain stable motivation and confidence in their own abilities over a long period of time. For IT professionals, high self-efficacy means the willingness to take on complex projects, seek non-standard solutions, and maintain productivity in situations of pressure and uncertainty. Thus, self-efficacy is an integrative cognitive resource that combines



motivational and regulatory mechanisms that ensure stress resistance and professional well-being

5. Cognitive flexibility – the ability to restructure thought patterns and change approaches to problem solving depending on situational demands. Within the framework of the theory of cognitive flexibility, R. Spiro and colleagues emphasize that this ability ensures the effective application of knowledge in new and “insufficiently defined” situations, contributing to rapid adaptation and maintaining performance in conditions of high demands (Spiro, Feltovich, & Coulson, 1992). We believe that cognitive flexibility is critically important in areas with high levels of unpredictability and rapid change.

In a demanding professional environment, cognitive flexibility allows an individual to respond quickly to changes, adapt existing knowledge to new conditions, and find unconventional solutions in situations where there are no ready-made algorithms of action. For IT professionals, cognitive flexibility means the willingness to quickly master new technologies, adapt work processes, and act effectively in cases of technical or organizational changes. Thus, it is a key cognitive resource that ensures resistance to stress and maintains a high level of professional well-being in conditions of constant dynamics.

6. Meta-cognitive awareness is the ability to monitor and regulate one's own cognitive processes, in particular, to recognize automatic thoughts, notice cognitive distortions and consciously choose more adaptive ways of thinking. This ability is based, in particular, on the approach of J. Flavell, who was one of the first to introduce the concept of "metacognition" to denote an individual's knowledge of their own cognitive processes and the ability to consciously control them and distinguished two components of metacognition: metacognitive knowledge (awareness of one's own cognitive processes, their capabilities and limitations) and metacognitive control (the ability to plan, monitor and correct one's



own thinking). The researcher considered metacognition as a key mechanism that helps a person learn more effectively, solve problems and adapt to new situations (Flavell, 1979).

In the context of high demands on activity, meta-cognitive awareness is an important cognitive resource, as it allows you to timely identify and correct ineffective thinking patterns, maintain concentration and optimize the decision-making process. For IT professionals, this resource helps maintain clarity of thinking in conditions of multitasking and information overload, increasing work efficiency and stress resistance. Thus, meta-cognitive awareness integrates self-control and flexible thinking skills, which directly supports professional well-being.

7. Reflexivity is a tendency to deeply analyze one's own actions, thoughts, and decisions, which contributes to the accumulation of experience and the formation of more stable and effective cognitive strategies. Reflexivity in a psychological context can be analyzed in the context of the approach of J. Dewey, who considered it as a purposeful and active process of thinking aimed at understanding one's own experience in order to obtain new knowledge and improve future actions. In his opinion, reflective thinking includes a critical analysis of assumptions, assessment of the consequences of decisions made, and integration of the acquired experience into further activities. (Dewey, 1933).

In conditions of high demands on activity, reflexivity functions as a cognitive resource that allows an individual to systematically rethink their experience, identify strengths and weaknesses of their own activities, and adjust behavioral strategies to increase efficiency. For IT professionals, reflexivity helps optimize work approaches, quickly correct errors, and implement more productive solutions in future projects. Thus, it ensures the accumulation of experience, the development of adaptive strategies, and the strengthening of stress resistance, while supporting professional well-being.



Conclusions.

The theoretical analysis made it possible to substantiate that cognitive resources play a decisive role in maintaining professional well-being in conditions of high demands on activity. The proposed model includes deep (basic) beliefs, thinking strategies, attributive style, self-efficacy, cognitive flexibility, metacognitive awareness and reflexivity. Each of these resources performs specific functions that, in interaction, form the ability of the individual to effectively adapt to professional challenges, maintain emotional balance, maintain high motivation and performance. The theoretical substantiation of the model creates a basis for the development of targeted psychological programs for the development of cognitive resources in IT specialists, which will contribute to increasing their stress resistance and level of professional well-being.

References:

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209–223. DOI:[10.1108/13620430810870476](https://doi.org/10.1108/13620430810870476)

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. Boston: D.C. Heath & Co.

Diener, E., Oishi, S., & Lucas, R. E. (2009). Subjective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Oxford handbook of positive psychology* (pp. 187–194). New York: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780195187243.013.0017>

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist*, 34(10), 906–911 <https://doi.org/10.1037/0003-066X.34.10.906>

Harrison, A. F., & Bramson, R. M. (1984). *The art of thinking*. New York: Berkley Books.



Harter, J. K., Schmidt, F. L., & Keyes, C. L. M. (2003). Well-being in the workplace and its relationship to business outcomes: A review of the Gallup studies. In C. L. M. Keyes & J. Haidt (Eds.), *Flourishing: Positive psychology and the life well-lived* (pp. 205–224). Washington, DC: American Psychological Association. <https://doi.org/10.1037/10594-009>

Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Application of the schema construct. *Social Cognition*, 7(2), 113–136.

Robertson, I., & Cooper, C. (2011). *Well-being: Productivity and happiness at work*. London: Palgrave Macmillan. <https://doi.org/10.5860/CHOICE.49-2773>

Seligman, M. E. P. (2011). *Flourish: A visionary new understanding of happiness and well-being*. New York: Free Press.

Spiro, R. J., Feltovich, P. J., & Coulson, R. L. (1992). Cognitive flexibility theory: Advanced knowledge acquisition in ill-structured domains. In T. M. Duffy & D. H. Jonassen (Eds.), *Constructivism and the technology of instruction: A conversation* (pp. 57–75). Hillsdale, NJ: Lawrence Erlbaum Associates.

Warr, P. (2007). *Work, happiness, and unhappiness*. New York: Routledge DOI:[10.4324/9780203936856](https://doi.org/10.4324/9780203936856)

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