## **СЕРІЯ «Психологія»**

UDC 159.9:330.131.7

https://doi.org/10.52058/2786-4952-2025-7(53)-1104-1112

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# THE LINK BETWEEN MENTAL HEALTH AND DECISION-MAKING EFFICIENCY IN NEUROECONOMICS

**Abstract**. This article examines the link between mental health and the basic concepts of neuroeconomics, which studies the decision-making process when choosing alternative options, allocating risk and reward allocation. Based on the interpretation of mental health as a state of well-being in which the individual realizes their own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to their community, the authors attempt to link different personality states with making reasonable or un reasonable, effective or ineffective economic and financial decisions. It is proposed to consider mental health as a continuum that includes: mental health, reaction, injured, and mental illness. The article highlights the most common types of mental illness, such as: Generalized anxiety, Obsessive-compulsive disorder (OCD), Depression, Post-traumatic stress disorder (PTSD) and Bipolar disorder. Considering mental health as a continuum, the

authors, viewing mental health as a continuum, suggest stages in which only social support and sometimes special care are needed. It is important to distinguish groups of factors that contribute to the development of mental illness: environment, genetics, education and work. The authors consider in detail the main factors of each subgroup. The environment factors are: stressful life conditions, the death of a loved one, financial problems; historic abuse, military combat; the use of alcohol or drugs; abuse relationship. The genetic factors can include: previous history of mental illness; genetic dieses; brain damage. Education factors may include: academic pressure; bullying; social inequality. Employment factors can include: poor communication; lack of support; excessive workloads; job insecurity. In order to defect mental health problems early, the authors suggest signs and symptoms that should be identified to prevent ineffective economic decisions. The relationship between mental health or ill health and ineffective economic decisions, which in the worst case can lead to financial losses and threats, has been established. The article introduces a curve of changes in mental health and the level of risk of making ineffective economic decisions, which neuroeconomics describes, is presented.

**Keywords:** mental health, mental illness, factors of mental illness development, leadership, behavior, management of behavior, neuroeconomics, economic decisions, effectiveness of economic decisions.

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## ВЗАЄМОЗВЯЗОК МЕНТАЛЬНОГО ЗДОРОВ'Я З ЕФЕКТИВНІСТЮ ПРИЙНЯТТЯ РІШЕНЬ В НЕЙРОЕКОНОМІЦІ

**Анотація.** Пропонована стаття розглядає взаємозв'язок ментального здоров'я з основними поняттями нейроекономіки, яка вивчає процес ухвалення

рішень при виборі альтернативних варіантів, розподілу ризику та винагороди. Грунтуючись на трактуванні ментального здоров'я як стану благополуччя, в якому особистості можуть подолати нормальній стреси в житті і працювати продуктивно й результативно, а також спроможні робити вклад в їх спільноти, автори роблять спробу пов'язати різні стани особистості з прийняттям обгрунтованих чи необгрунтованих, ефективних чи неефективних економічних і фінансових рішень. Пропонується розглядати ментальне здоров'я як континуум, який містить: ментальне здоров'я, реакцію, засудження і ментальне нездоров'я. У статті виокремлені найбільш загальні види ментального нездоров'я, такі як: генералізований тривожний розлад, обсесивно-компульсивний розлад (ОКР), депресія, посттравматичний стресовий розлад (ПТСР), біполярний розлад. Автори, розглядаючи ментальне здоров'я як континуум, пропонують етапи, в яких необхідно лише соціальної підтримки, а іноді спеціальний догляд. Важливим є виокремлення груп чинників, які сприяють розвитку ментального нездоров'я: оточення, генетика, навчання і робота. Автори детально розглядають основні чинники кожної підгрупи. До чинників середовища належать: стресові життєві обставини, смерть близької людини, фінансові проблеми, пережите в минулому насильство, участь у бойових діях, вживання алкоголю чи наркотиків, токсичні стосунки. Генетичні чинники можуть включати наявність перенесених психічних розладів, генетичні захворювання, ушкодження головного мозку. Освітні чинники можуть охоплювати: академічний тиск, булінг і соціальну нерівність. До чинників, пов'язаних з працевлаштуванням, відносять: неефективну комунікацію, відсутність підтримки в колективі, надмірне робоче навантаження, нестабільність зайнятості. З метою раннього розпізнавання проблем з ментальним здоров'ям автори пропонують знаки і прояви, які слід виокремити, щоб запобігти неефективним економічним рішенням. Встановлено власне взаємозв'язок між ментальним здоров'ям чи нездоров'ям і неефективними економічними рішеннями, які в найгіршому випадку можуть призводити до фінансових втрат і загроз. Представлена модель змін у ментальному здоров'ї та рівні ризику прийняття неефективних економічних рішень, які описує нейроекономіка.

**Ключові слова:** ментальне здоров'я, ментальні хвороби, фактори розвитку ментальних захворювань, лідерство, поведінка, управління поведінкою, нейроекономіка, економічні рішення, ефективність економічних рішень.

Statement of the problem. Modern conditions have brought a lot of anxiety and confusion to society. People during the war have become even more vulnerable, which is reflected in their decision-making in the economics and finance. This manifests itself in different ways but is clearly described by neuroeconomics. The science that examines the interaction of emotional and rational processes in decision-making helps explain the ways and means by which people are guided in the economic and financial spheres. However, it is important now to emphasize and define the role, as well as the interaction of mental health, its level, and making effective or ineffective decisions, as well as to find ways to support people's mental health in crisis situations.

Analysis of recent research and published papers. Research in this direction is carried out by M. Akulich, F. Barden, J.P. Gómez, M. Chatelain, E. Kahn, W. Newsam and A. Trindl.

The purpose of the article is to study the basic concepts of mental health, factors influencing its deterioration and the development of mental illnesses, as well as to research for the link with decision-making in neuroeconomics.

**Statement of basic materials.** Neuroeconomics is an interdisciplinary field of study at the intersection of economic theory, neuroscience and psychology. It studies the process of decision-making while choosing alternatives, allocating risk and reward. Neuroeconomics uses economic models to study the brain and advances in neuroscience to create economic models [1].

Since neuroeconomics examines the interaction of emotional and rational processes in decision-making, which goes beyond traditional economic models, we believe that an important stage in the development of this science is to study the impact of people's mental health on decision-making.

According to the World Health Organization (WHO), mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" [2].

In our opinion, mental health is the statement of people when they can realize their level of well-being or distress and provide productive activities (such as in work, school or caregiving), healthy relationships and be able to adapt to change and cope with problems.

In contrast to mental health, mental illnesses are health conditions involving changes in emotion, thinking or behavior (or a combination of these). Mental illnesses can be associated with distress and/or problems functioning in social, work or family activities.

Figure 1 shows the most common mental illnesses that affect the individuals and their states.

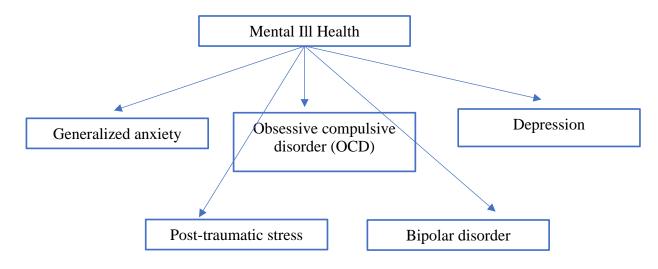


Fig. 1. The most common mental illnesses

Mental health continuum consists of two phases and four categories: healthy, reacting, injure and ill, which are developing (fig. 2).

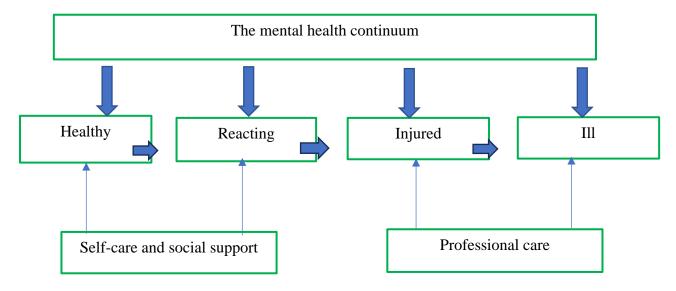


Fig. 2. The mental health continuum

Since mental health is viewed by many researchers as a process that can change from mental health, on the one hand, to mental illness, on the other, certain states of individuals can be represented on this line (fig. 3).

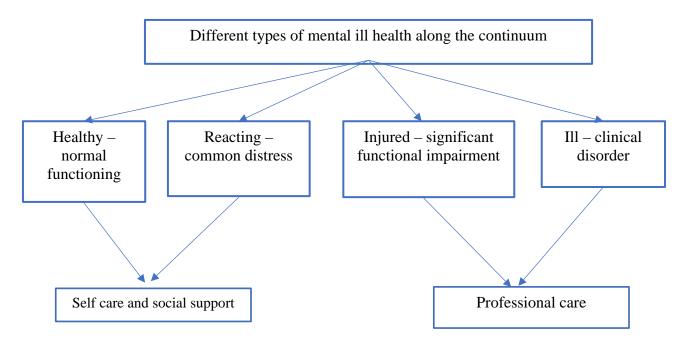


Fig. 3. The types of mental ill health along the continuum

To develop the concept of mental health, we need to consider the factors that may increase the risk of mental ill health in individuals (fig. 4).

Giving more detail on all groups of factors, the environment factors are:

- Stressful life conditions, the death of a loved one, financial problems;
- Historic abuse, military combat;
- The use of alcohol or drugs;
- Abusive relationship.

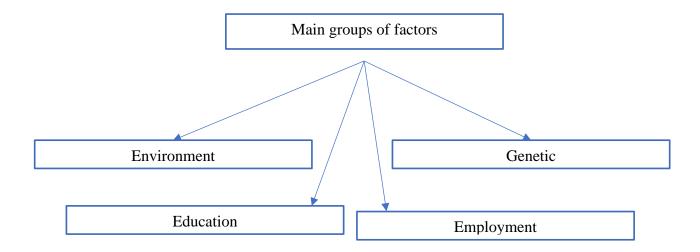


Fig. 4. The main groups of factors of increasing the risk of mental ill health

The genetic factors can include:

- Previous history of mental illness;
- Genetic dieses;
- Braine damage.

The education factors may include:

- academic pressure;
- bullying;
- social inequalities.

Factors connected with employment include:

- poor communication;
- lack of support;
- excessive workloads;
- job insecurity etc.

Of course, there are not all risk factors presented, but only examples of those that can reduce the level of mental health of individuals.

In order to prevent decline in mental health of individuals and making impulsive, unfounded economic decisions we need to identify signs and indicators that an individual may be experiencing mental ill health (fig. 5).

(Серія «Педагогіка», Серія «Психологія», Серія «Медицина») Nº 7(53) 2025 Lack of concentration, Chronical Conflicts with Insomnia distraction other fatigue Changes of eating, Bad time-Low motivation sleeping habits management Changes in mood Unexpected absence of work Signs and symptoms of mental ill health

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Fig. 5. The main signs and symptoms of mental ill health

Emotions play a major role in financial decision-making. Fear, anger, greed, or overconfidence can lead to irrational behaviour and negatively impact mental health.

Since mental health and ill health are a continuum, it is necessary to distinguish stages at which the risk of making impulsive, unfounded economic decisions increases. Thus, at the stage of full mental health, a person is able to make informed economic decisions. At this stage, impulsive purchases or suboptimal economic decisions are possible, caused by the mood swings that are possible in this phase. But a mentally healthy person cannot make irreversible, life-critical, ineffective decisions.

Other stages of mental health deterioration and mental illness may lead to inefficient economic decisions, which is what neuroeconomics describes. For example, a person with depression is prone to illogical purchases and risky economic decisions, which can lead to loss of money and confidence in the future.

Figure 6 presents a model of the relationship between mental health as a continuum and the risks of making ineffective economic decisions.

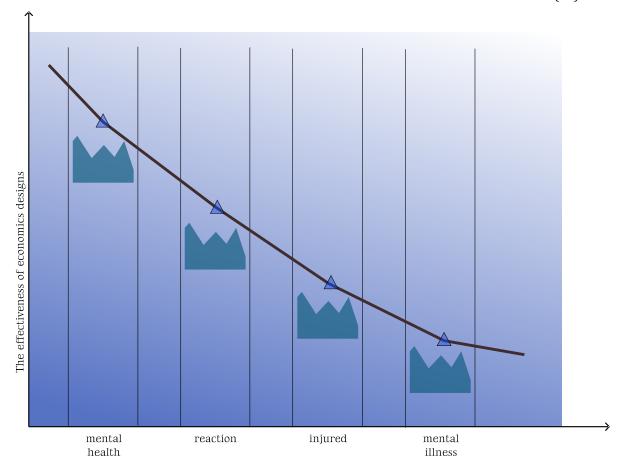


Fig. 6. The link between mental health and the risks of making ineffective economic decisions

Such a model allows us to demonstrate the connection between the level of mental health and the effectiveness of decision-making in the economic and financial spheres. The main graph shows that the relationship between these concepts exists and looks like a decrease in the effectiveness of decision-making depending on the decrease in the level of mental health: people with a high level are more likely to make balanced economic and financial decisions, while people with a low level of mental health or with mental illnesses and disorders are prone to ineffective decisions, which can lead to debts and financial crises.

On the other hand, the model shows that there are fluctuations in each of the periods, that is, even in the phase of mental health, a person can make ineffective economic or financial decisions due to mood swings, changing circumstances. The same fluctuations are possible in a state of mental illness. Therefore, it is necessary to consider a multifactorial model in which as many factors as possible are taken into account, and not just mental health condition.

**Conclusions.** Research of the concept and main components of mental health has made it possible to consider it as a continuum, which has allowed us to identify certain stages in the negative development of mental health: from good or normal to ill

health and even mental disorders or diseases. This approach allowed us to focus on finding the relationship between mental health/illness and the level of decision-making efficiency in the economic and financial spheres, on which neuroeconomics is based. As a result, this allowed us to develop a model of this relationship, which shows the relationship between a negative change in the level of mental health and a decrease in the effectiveness of decisions made, although it also made it possible to see that decision-making in the economic and financial spheres can be influenced by other factors that are characteristic of good mental health.

So, in general, it should be concluded that the relationship between mental health and decision-making in the field of neuroeconomics exists, but the larger number of factors that determine changes in the mental health continuum require further research.

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