

**SCTMG 2023**

**International Scientific Conference «Social and Cultural Transformations in the Context of  
Modern Globalism»**

## **HUMAN EMOTIONAL RESILIENCE AND PSYCHOLOGICAL PROBLEMS ASSOCIATED WITH SEA PROLONGED EXPOSURE**

Alexey Ivanovich Epikhin (a), Demid Igorevich Biryulin (b), George Igorevich Kulikov (c)\*

\*Corresponding author

(a) Admiral Ushakov Maritime State University, 93, Lenin Ave., Novorossiysk, 353918, Russian Federation

(b) Admiral Ushakov Maritime State University, 93, Lenin Ave., Novorossiysk, 353918, Russian Federation

(c) Admiral Ushakov Maritime State University, 93, Lenin Ave., Novorossiysk, 353918, Russian Federation,  
bsmbeton@mail.ru

### **Abstract**

Emotional resilience is a crucial aspect of life that is closely related to self-belief. It is a person's ability to control his emotions and withstand difficult life situations in order to maintain his calm and prosperous state. It can be disturbed by problems associated with the specifics of working in a maritime environment. Let's take a closer look at complex measures to counteract stress. Work-related stress is a topic that is receiving increasing attention from research and policy institutes. Seafaring is a work activity with specific characteristics that takes place under specific conditions from a physical and psychosocial point of view. Work-related stress affecting seafarers has specific characteristics, often different from those that can be assessed in other work activities. They include many possible hazards in the form of accidents, injuries and illnesses. The risks associated with seafaring depend on the type of activity or work on board. This activity must be considered as strenuous because of the many factors inside and outside the vessel that affect it. A seafarer's work is characterised by subjective and objective stressors.

2357-1330 © 2024 Published by European Publisher.

*Keywords:* Activity, control emotions, complex measures, person's ability, psychosocial point of view, stress

## 1. Introduction

Living in an era of technological revolution, every few years we adapt to changes that previously did not occur in our daily lives from strict digitisation to the non-stop influence of social media. There is a natural sense of dependence on technology. In our case (in the case of people who work at sea), this factor also has a strong impact, especially on the younger generation. Because not every ship has the opportunity to regularly use technology and social networks that people use in normal conditions. This is where significant differences between the younger and older generations in terms of the use of modern online social technologies become apparent (Bodrov, 2001). The factor of isolation from the outside world has an impact, as a ship is a limited space and the staff is small. If access to the Internet allows you to communicate with different people without restrictions and forms an additional media space, then, being on a voyage, most of the time a person is deprived of this advantage. This cannot but affect the psyche, especially that of inexperienced seafarers. There is no usual variety of communication and the picture of the surrounding world becomes very monotonous (Zezyulina, 2009).

The combination of these factors can negatively affect the psychological state of people, so it is necessary to understand in more detail the causes that contribute to this (Dokuchayeva et al., 2024; Tang & Yang, 2024).

## 2. Problem Statement

Emotional resilience is divided into three aspects; it is what we can base our resilience on or an area of improvement:

A physical aspect incorporates physical strength, vitality and improving one's state of health. Many experts in psychology and psychosomatics state that the factor of normal physical activity is necessary for full mental health, as well as the factor of absence of improper functioning of the body. That is, emotional stability depends on whether a person is sick or healthy. Also sometimes the crew of a ship can get into unfavourable weather conditions, which can cause seasickness, and this in turn brings serious disturbances in the seafarer's working capacity (Bronivitsky, 2020).

Social elements are an interpersonal interaction being important (relationship at work, team on the ship, relationship with children, relationship with parents and their health, relationship with friends, relationship with crewing agency staff, society and so on). Group conformity to social norms, outward attractiveness, communication and co-operation with fellow crew members are social elements. They are no less important than other aspects of emotional resilience, because a person is a social being and he/she vitally needs to communicate and interact with other people. And it is also important how these people treat him/her, in other words, his/her social status (Lipich & Balahura, 2024; Regnerová et al., 2024; Shumilina & Antsiferova, 2024).

Self-awareness is a person's awareness of himself in contrast to other subjects and the world as a whole. It is a person's awareness of his interaction with the world. It also includes awareness of one's vital needs, thoughts, feelings, instincts, experiences and actions. It is through self-awareness that we gain the deepest possible understanding of how our feelings contribute to our actions. There is also an important role to be assigned to existential givenness in the aspect of self-awareness. Namely, there are four

(according to Irvin Yalom's theory): freedom, loneliness, death and meaninglessness. They give birth to a natural anxiety in the soul of each person, and, depending on how he copes with it, his patterns of behaviour are formed, which have an impact on his health. If a person denies these givennesses, he may develop serious problems with his nervous system (Ahmad et al., 2024; Singh et al., 2024; Waite, 2024). In addition to the given, there are existential needs in creativity of any kind, in material goods (in the case of seafarers it is all that is necessary for work and comfortable life in shipboard conditions). There are social needs in communication with other people, need in development (moral self-improvement is peculiar to those who have reached a high level of personal development) and, finally, existential need (to have a purpose and meaning of life).

Emotional stability is the most important factor, which is composed of the above aspects. Emotional stability plays a particularly strong role at the beginning of a voyage, when crew members are adapting to new conditions (Gardner, 1987).

### **3. Research Questions**

The duration of the time of adaptation of the organism to new conditions lasts on average up to 10 days for crew members. One of the characteristic features of this period is external restraint; communication on personal topics not related to the work process is quite rare. Relationships between crewmembers are neutral and balanced. But after this period, individual personality traits are noticeably manifested in both negotiations and relationships (Bronivitsky, 2015).

The monotony of sounds and the monotony of inner impressions contribute to the development of a sense of monotony and a low range of emotions. After a month, many people think that everything around is deserted, as if there is nothing but water. Therefore, a well-thought-out programme of activities and life of the crew during this period contributes to the prevention of "sensory hunger" and various reactive states. In the first month of the crew's joint work at sea, relations are smooth, the main topics of conversation are memories.

According to researchers, a long contract requires rather mental than physical stamina. The deterioration of seafarers' mental state starts to manifest itself most sharply at the end of the third month and the beginning of the fourth month of the voyage. Therefore, some sort of activity is necessary at this time to give the crew a rest. After rest in port, the mental state of seafarers improves significantly, but unfortunately due to current restrictions (coronavirus) this is far from always possible. Active rest in the middle of the voyage delays the onset of fatigue for 30–40 days, after which the seafarers' psychophysiological functions and mental state indicators are again disturbed (Myers, 2019).

### **4. Purpose of the Study**

Maritime life under conditions of long voyages undoubtedly also affects the lostness, as well as the feeling of dissatisfaction with one's life state of mind of the seafarer after the end of the contract. Most often there is no emotional overstrain or, as some say, there is a syndrome of "maritime depression". Symptoms of this state are different and individualised by typological features of character. There are also elements of doubt and jealousy, some depression and elements of new (Bodrov, 2001).

Seafarers often have little free time and this can increase stress. Sport, for example, can help to improve physical and psychological wellbeing and can therefore provide an opportunity to facilitate social interactions, promote team building and increase co-operation. Other factors that positively influence well-being are social skills, good self-esteem, problem-solving skills and adequate expression of emotions. By exercising, seafarers can improve their social competence and health. Consequently, a gym and some social activities can be useful to improve well-being on board ship.

## **5. Research Methods**

### **5.1. Marine depression**

Often during a long stay on a ship, seafarers experience psychological disorders, depression, and loss of energy. In stressful situations, the body produces more of a hormone called cortisol. In the short term, this is good because it helps prepare you to deal with whatever is causing stress in your life.

The main stress factors are considered to be lack of motivation to do the job, repetitive work duties, working in multinational crews, excess or lack of work assignments, changing ships, changing companies. However, in the long run, it can cause you many problems including depression. The more you use methods to reduce stress, the better, because it will reduce the risk of getting depressed.

Sleep and mood are closely linked. A 2014 study of depression propensities and features of the organisation of brain oscillatory networks by the Russian Scientific Community found that 80% of people with major depressive disorder experience sleep disturbances. Depression not only makes you feel bad, it can also make a person think more negatively. However, changing these negative thoughts can improve a person's mood and outlook.

Depending on the port of embarkation and the duration of the contract, reactive states (the psyche's attempt to cope with and adapt to stress), neuroses, situational depressions and other neurotic disorders have been observed, which sometimes strongly affect seafarers' working capacity. Correct and timely disclosure of issues of interest to seafarers, or simply a well thought out approach, greatly facilitates the labour activity in the seas of a crew under certain working and living conditions.

Knowing the psychology of seafarers, their aesthetic desires, unique aspects of their worldview, and the resulting proper coordination of work and life on the ship will do much to keep them healthy and help them get more opportunities for future contracts.

The most natural emotional states for seafarers are feeling lonely, agitation, anxiety, expressiveness, low empathy (sympathy for the other person), conflict, sometimes aggression, feelings of doubt and dependence on interpersonal relationships.

When it comes to military seafarers, they are likely to encounter the phenomenon of lack of loneliness. They live and sleep in shared quarters, eat together and naturally, work together. Physical training and special classes all take place collectively. This is the case with enlisted personnel. Officers, more often than not, have single cabins.

There is an effective methodology that can minimise the impact of all negative factors, establish the aspects of a person's life necessary for emotional stability and remove existing psychological problems, eliminating future problems.

## 5.2. Cognitive-behavioural theory

Cognitive Behavioural Theory (CBT) is a type of therapy that works to change common patterns of negative thinking, called cognitive distortions, in order to eliminate depression.

Cognitive is the ability of a person's perceived ability to respond to external events and stimuli according to their patterns of action.

From a young age, a person forms his or her own unique set of qualities, habits and patterns of behaviour in a given situation. Elements of this set can be both positive and negative, which can interfere with normal life activity.

CPT is a branch of psychology that is based on the principle that behaviour and thinking depend on a person's habitual response to certain stimuli. This means that each person reacts uniquely to external stimuli.

How does a person usually react to distressing events? As a rule, it is a feeling of inability to influence the situation, anxiety, fear and nervousness. If one is under the influence of such emotions for too long a period of time, it will inevitably lead to a mental disorder. How you can cope with such emotions. Man is organised in a way that he cannot control the world around him 100%, but there is one thing that is completely under his control: his emotions and reaction to external stimuli. Jacques Fresco argued that there is a tangible difference between man and animal in this respect. If an animal reacts according to developed instincts and does not trace the process from the appearance and influence of a stimulus to its reaction to it. A human has a choice how to react to this or that event, i.e. to do it consciously. And we can choose between productive and negative reactions. This is one of the secrets of people who have reached a high level of personal development. But most people tend not to keep track of this moment. Cognitive behavioural therapy was invented to help them.

The main goal of the CPT psychologist is to teach the patient to analyse more deeply his/her thoughts arising during anxious situations and to learn to control them. This therapy takes place in several stages and gradually builds strong life-affirming stereotypes of consciousness. The therapy is designed to lay a strong foundation of self-awareness and closure of some existential needs. Its outcome is that the person learns techniques to reduce anxiety and stress, to overcome panic and fear in difficult situations. The key point here is that crew members can be psychologists for themselves; this is an extremely important aspect, because if a seafarer is in a resourceful state (absence of anxiety, stress, nervousness), his work will be more productive and fatigue from a long contract will affect less significantly.

Objectives of the CPT:

- i. Exposure to anxious thoughts that contribute to depression, phobias, panic attacks;
- ii. transformation of the lifestyle, if previously there were negative aspects in it (bad habits, poor nutrition, violation of daily routine, excessive physical and mental overload);
- iii. creation and consolidation of a new level of thinking and use of new patterns in negative situations that arise;
- iv. overcome of the shame for their weaknesses and anxieties, learn to share problems with close people and enjoy their support.

The main significant advantage of CBT is the result, which lasts for a long time and is extremely stable. After undergoing cognitive behavioural therapy, the patient not only gets the result, but also an

understanding of how he or she came to such a result. In the case of seafarers, this factor has a very high value, as there is no psychologist at sea and it is unlikely that a person with the necessary skills will be on board a ship. But due to CPT any crew member will be able to independently control, diagnose and cope with his internal problems. Simply put, he becomes his own psychologist.

## 6. Findings

Advantages are as follows:

- i. high efficacy, proven by a large number of clinical trials over a long period of time (invented back in the 1960s by Aaron Beck);
- ii. therapy is short-term, as it does not last more than 10 sessions;
- iii. therapy itself is based not only on subjective factors, but also on a scientific basis: the approach is based on psychology, neurobiology, psychophysiology and similar scientific trends;
- iv. action plan developed in the course of therapy is clearly understood by both the patient and the therapist;
- v. therapy is officially recognised amongst insurance companies, meaning that the costs of CPT are in some cases met through health insurance.

In their sessions, CPT psychologists, depending on the main task, use different techniques to help identify, analyse and correct a person's anxious perception of the situation. Man is organised in a way that quite often his thoughts about the future acquire a negative character, which makes him succumb to excessive worries, often these thoughts do not have any specific grounds. This is how panic begins. With the help of CPT techniques, a person changes his thinking and significantly reduces the effect of negativity on his psycho-emotional state.

## 7. Conclusion

Based on the above, most seafarers have a number of psychological problems and are exposed to stress while working on seagoing vessels. Some crew members may be severely affected, while others may not even realise or feel the impact of these problems on their lives. Nevertheless, in order to increase the efficiency of the crew, to avoid incidents among its members, cognitive behavioural therapy for seafarers before signing a contract can be used in practice. Especially young seafarers, who are more dependent on social technologies than the older generation, will benefit from it.

In addition, the former have less experience of the living and working conditions on a ship, which is bound to affect their psyche. On this basis, CBT will be of maximum benefit to them, and for some, is necessary.

Specific strategies should also be targeted at different categories of seafarers and the results of these interventions should be evaluated at a distance. European regulations, including Italian ones, if properly applied, can guarantee a real improvement in the psychological health of workers and their safer activities. Future perspectives could include a system of counselling and support at a distance, via the Internet, allowing feelings and emotions to be revealed in a context far from work and then in a safer

environment. Seafarers could benefit from web-based counselling with a psychologist to reduce previously identified factors such as eating disorders and loneliness, improve social skills, quality of life, self-esteem, problem-solving skills and adequate expression of emotions.

## References

- Ahmad, S. S., Almobaideen, W., Abdelhakim, M. N., & Rani, R. (2024). Artificial intelligence-enabled cutting-edge technologies: *Innovation for Industry 5.0, Healthcare 5.0, and Society 5.0. Converging Pharmacy Science and Engineering in Computational Drug Discovery*, 12, 140–158. <https://doi.org/10.4018/979-8-3693-2897-2.ch007>
- Bodrov, V. A. (2001). *Psychology of professional suitability*. PER SE.
- Bronivitsky, G. A. (2015). *Cognitive Psychology: History and Modernity*.
- Bronivitsky, G. A. (2020). *Social and psychological studies of the influence of long voyages on the mental state of sailors*. PER SE.
- Dokuchayeva, N., Ivanova, S., Azimbayeva, Z., Ten, A., & Baimamyrov, S. (2024). Value-Based Perspectives on the Teacher's Role in Modern Education. *Journal of Educational and Social Research*, 14(4), 60. <https://doi.org/10.36941/jesr-2024-0085>
- Gardner, H. (1987). *The Mind's New Science: The History of Cognitive Revolution*. Harper Collins Basic Books.
- Lipich, L., & Balahura, O. (2024). Consumers of tourist services in the subject field of sociology. *E3S Web of Conferences*, 538, 05010. <https://doi.org/10.1051/e3sconf/202453805010>
- Myers, D. (2019). *Social Psychology*. Harper Collins Basic Books.
- Regnerová, O., Chelombitko, T., Rakityanska, L., Zaplatynska, A., Sizhuk, I., Bondar, S., & Derbak, O. (2024). Using music in ESG education. *E3S Web of Conferences*, 538, 05006. <https://doi.org/10.1051/e3sconf/202453805006>
- Shumilina, A., & Antsiferova, N. (2024). Environmental legal culture legislative consolidation methodology in the Russian Federation. *BIO Web of Conferences*, 116, 03028. <https://doi.org/10.1051/bioconf/202411603028>
- Singh, M., Joshi, M., Tyagi, K. D., & Tyagi, V. B. (2024). Future Professions in Agriculture, Medicine, Education, Fitness, Research and Development, Transport, and Communication. *Topics in Artificial Intelligence Applied to Industry 4.0*, 181-202. <https://doi.org/10.1002/9781394216147.ch10>
- Tang, L., & Yang, S. (2024). Improving Social Civilization. *New Progress in Research on Perspective. Ethics in Progress*, 15(1), 95–110.
- Waite, L. (2024). Global human exploitation: Trafficking, forced labour, and modern slavery. *The Companion to Development Studies*, 12, 414–418.
- Zezyulina, T. (2009). *Psychological features of the experience of loneliness by long-distance sailors. Theme of scientific article on psychological sciences*. Lomonosov.