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Research paper

Adaptation disorders found among students of higher educational institutions of specialties of marine and river transport in the conditions of long-term sailing

Shevchenko R.P. *

Head of the Department of Practical Psychology, Odessa National Maritime University
**Corresponding author E-mail:*

Abstract

In article the analysis is carried out of features of disorders of adaptation capabilities found among students of higher educational institutions of specialties of marine and river transport. On the basis of the conducted research comparative characteristic of features of violations of adaptation at junior students and senior students who have undergone floating practice in a long voyage (over 3 months) is given. An approach in development of psychocorrectional actions in groups of a research taking into account clinical and a pathopsychological features is offered.

Keywords: *Psycho-Emotional State of the Worker of Sea and River Transport; Pathopsychological Factors; Extreme Working Conditions; Limited Space; Adaptation Disorders.*

1. Relevance of the study

Disadaptive reactions that manifest in neurotic disorders of a preclinical level influence both a condition of the mental sphere of the personality, and quality of life of the subject. The quality of life, need of satisfactory working conditions for seamen are the main aspects of maintaining balance of physical and mental functioning [1], [2].

The problem of diagnostics of adaptation disorders of students of higher educational institutions of specialty of marine and river transport are presented by a number of factors:

- The need to identify premorbid and significant factors of the formation of pathopsychological mechanisms of adaptation disorder (preclinical level);
- Development of criteria of early diagnostics of maladaptive manifestations after stay in conditions of long journeys;
- Identification of the targets of psychological intervention

Building prognostic models of various forms of adaptation disorders, identification of their pre-empathic predictors is impossible without accurate differentiation of separate components.

An increase in morbidity, social and professional maladaptation and disability of patients with complete or partial loss of the opportunity to participate in the production sphere due to the mental impairment of developing people working in the sea is one of the most urgent medical, social and psychological problems. Disorders of clinical polymorphism are observed, and their social consequences attract the attention of many specialists.

The scientific novelty of the problem is that mental disorders develop in individuals who do not have physical or mental functioning disorders. The problem of mental disorders in workers in the marine environment, according to many authors, is considered in the framework of neurotic and neurosis-like disorders.

At the same time, there is reason to believe that the important scientific and practical issues, the prevalence of neurotic, psychotic and psychosomatic disorders of their classifications, remain unexplored. Also, the extension of the data on the classification of determinant factors, epidemiology, and the dynamics of mental disorders forming in sea conditions has further relevance. The features of the syndrome structure of such disorders, the correlation dependence of exogenous, including psychogenic and premorbid-constitutional aggravating factors in their development, remain unexplored.

All above led to the study of pathogenic factors of employees of sea and river transport.

2. Results of research

Features of the educational process of students define specifics of tension of physical and mental resources. The criterion for the formation of research groups were existence of practical activities which appeared from a third year of educational process. Thus, two groups were created for the purpose of research. The first group consisted of 46 students of the first and second courses which had no experience of practical activities of future profession. The second group consisted of 58 students of the third and fourth courses which had experience of practical activities and there were more than 3 months in sea voyage.

An analysis of clinical complaints at students of various courses was conducted to identify signs of adaptation disorder.

The received results on the analysis of complaints at students of higher educational institutions of specialty of marine and river transport had reliable differences on manifestation frequency in groups of research.

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In group 2 into which the students who underwent sea journey practice entered complaints of the sensorimotor and cognitive register were observed more often.
The surveyed students noted the following complaints of the sensorimotor register: feeling of internal tension in 41.37% (at ρ_φ <0.05), at the same time muscular tension was noted by 31.03% from total number, muscle pain at 12.06%.
The presence of this register of complaints at students of higher educational institutions of specialty of marine and river transport demonstrates formation of disorders of the neurotic spectrum.
Regarding the cognitive register of complaints among students of group 2 of higher educational institutions specializing in maritime and river transport, was observed in 32.75% (with ρ_φ <0.05) studied, rapid fatigue after mental activity, in 15.51% studied feeling confused, in 36.2% investigated feeling elevated depletion of attention.
Rather cognitive register of complaints at students of group of 2 higher educational institutions of specialty of marine and river transport, it was observed at 32.75% (at ρ_φ<0.05) investigated, fast fatigue after cerebration, at 15.51% investigated feeling of confusion at 36.2% investigated feeling of the raised attention exhaustion.
Also complaints of the affective register which were shown are authentically more characteristic of group 2: at 29.31% in the form of any fears (for the health, family members, for performance of professional tasks, relationship with colleagues on flight), at 41.37% had an unmotivated feeling of alarm, 25.86% have a depressive symptomatology in the form of feeling of grief and melancholy, at 27.58% constant feeling of the lowered mood background, 36.20% have a feeling of depression, 24.13% complained of difficulties of self-control, 13.79% indicated presence of an out aggressive manifestations to the personality.
Students paid special attention to the manifestation of irritability (70.68% (with ρ_φ <0.05) high level was noted).
Complaints of the vegetative register were present at both groups of a research, however, in group 1, authentically smaller number of complaints of somatic character was noted: on dizziness, disorders of the digestive tract in comparison with students of older years.
Reliable differences between indicators in the groups indicate the level of adaptation disorder, which depends on the load in the process of educational activity. Acquaintance with practical activities of students is an integral part of educational process and formation of their future professional identity. However, students' stay in long sea journey practices associated with changing lifestyles, changing diet, daily work rhythm lead to the formation of maladaptive manifestations.
The carried-out analysis of pathopsychological symptomatology, at students of higher educational institutions of specialty of marine and river transport allowed to create a clinical picture of violations of adaptation opportunities, to define set of the symptoms united by the general pathogenesis.
On the basis of the selected psychological factors, the students were distributed according to the obtained symptomatic complex: astheno-neurotic, astheno-anxious, astheno-depressive and anxious-depressive.
Astheno-anxiety syndrome was significantly more often was revealed at 63.2% of junior students. Psychological state of this group differs in nervousness, tendency to concern in insignificant occasions. It is noted that such way of reaction leads in some cases to growth of number of the conflicts with people around. The surveyed found in their state a tendency to react by increased excitability in response to noise, too loud, in their opinion, communication of others and so on. The experienced state leads to quick fatigue, inability to prolonged loads of psycho-emotional, physical content.
Astheno-depressive syndrome was detected in 69.5% of senior students who have completed nautical training. The data obtained signal a decrease in interest in one's own life, confusion of difficulty in solving daily household issues. The state is characterized as a prolonged state of fatigue with a decrease in the general vitality, the unwillingness of the subject to plan something, to actively participate in what is happening around. The overall picture of the state is aggravated by the need to stay in difficult situations, in the form of psycho-emotional pressure with a closed space, as well as physical exertion, as one of the conditions of a long trip.

3. Conclusions

The results of the study indicate that older students who have undergone naval practice have a greater number of complaints from the sensorimotor and cognitive register: a sense of internal tension in 41.37% (with ρφ <0.05), muscular tension in 31.03% of the total, muscular pain in 12.06%. This indicates the formation of disorders of the neurotic spectrum.
While characterizing complaints of the cognitive register of complaints, it is necessary to note that older students have more rapid fatigue after mental activity in 32.75% (with ρφ <0.05), in 15.51% - a sense of confusion, in 36.2% of the studied feelings exhaustion of attention.
Data of affective register complaints is of scientific interest: after the long-term naval practice, fears manifested themselves more often among students - in 29.31%, in 41.37%. - unmotivated feeling of anxiety, 25.86% - depressive symptoms, 27.58% - permanent lowered background of mood, 24.13% - difficulty of self-control, 13.79% indicated aggressive manifestations, irritability - 70.68% (when ρφ <0.05).
Astheno-anxiety syndrome was detected in 63.2% of junior students, which was manifested by increased nervousness, a tendency to anxiety, increased tendency for conflict.
Asteno-depressive syndrome - in 69.5% of senior students after a long voyage, which was manifested in a decrease in interest in their own lives, difficulties in solving everyday household problems, a feeling of fatigue, a decrease in overall vitality.
The findings suggest the need for a more in-depth study of the issue of the effect of a long stay in the conditions of a sea voyage on the characteristics of adaptation disorders in students of the specialty of sea and river transport. The discovered interrelations of psycho-emotional peculiarities of adaptive abilities investigated and developing in them in the social, psycho-emotional aspects will open up the possibility of developing targeted psycho-corrective working methods.

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