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Features of Educational and Developmental Activity of Students Under Forced Self-Isolation

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The paper analyses differences in the expression and determination of the educational and developmental activity of students in everyday life and under forced social isolation. The study was conducted on a sample of young students (N=338) aged 16-25 years (M=19.9; SD=2.1), 63.9% female. The following methods were used: the authors' questionnaire aimed at identifying the intensity of educational and developmental activity in different life conditions; the technique "Activity of personality under forced social restrictions" (by N.V. Usova, I.V. Arendachuk, M.A. Klenova); the technique "Assessment of mental activation, interest, emotional tonus, tension and comfort" (by L.A. Kurgansky, T.A. Nemchin). The study found that under self-isolation the educational and developmental activity of students is higher than in 'normal' life. The paper also shows how various psychological features determine such activity. The less the students under selfisolation display educational and developmental activity, the more it is due to reactions of frustration and is further compensated by the transfer of activity to family relationships. Those students who display high educational and developmental activity tend to be more confident of having control over their life. They focus on professional development, recreation and entertainment. More or less, the display of educational and developmental activity of students greatly depends on their psychological and emotional states.

Keywords: students, social activity, educational and developmental activity, home quarantine, distance education, lockdown, social frustration, mental states.

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Характеристики образовательно-развивающей активности студентов в условиях вынужденной самоизоляции

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Проанализированы различия в проявлении и детерминации образовательно-развивающей активности студентов в обычной жизнедеятельности и в условиях вынужденной социальной изоляции. Исследование выполнено на выборке студенческой молодежи (N=338) в возрасте 16—25 лет (М=19.9: SD=2,1), из которых 63,9% девушки. Использовались методики: авторская анкета для изучения выраженности образовательно-развивающей активности в разных условиях жизнедеятельности, методики «Активность личности в условиях вынужденных социальных ограничений» (Н.В. Усова, И.В. Арендачук, М.А. Кленова) и «Оценка психической активации, интереса, эмоционального тонуса, напряжения и комфортности» (Л.А. Курганский, Т.А. Немчин). Установлено, что в условиях самоизоляции образовательноразвивающая активность студентов выше, чем в обычной жизнедеятельности. Показаны различия в ее детерминации психологическими характеристиками. Чем меньше студенты, находящиеся в самоизоляции, проявляют образовательно-развивающую активность, тем больше она обусловлена реакциями фрустрации и компенсируется переносом активности на семейные взаимоотношения. При высокой образовательно-развивающей активности студенты уверены в подконтрольности событий и направляют свои интересы в сферы профессионального развития, отдыха и развлечений. В целом проявление образовательно-развивающей активности у студентов обусловлено психоэмоциональными состояниями личности.

Ключевые слова: студенты, социальная активность, образовательно-развивающая активность, самоизоляция, дистанционное образование, локдаун, социальная фрустрация, психические состояния личности.

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Introduction

Studies of the problem of youth's social activity in the context of spreading of coronavirus infection and social restrictions related to it remain relevant at the present time, due to continuous complicated epidemiological situation. The requirements of forced selfisolation introduced during the pandemic have significantly limited individuals' activity, which is aimed at their development. Youth has been especially sensitive in this respect [20; 21]. Changes in the socio-psychological environment have made it much more difficult to solve age-related development tasks for young people, which are related to self-realization and self-development in the process of educational activities, and manifested themselves through distancing oneself from one's usual social groups [19], as well as through increased interest in the family and Internet network activity forms [28; 33]. These changes also affected educational and developmental activity, as one of the forms that is manifested in modern youth more than other social activity forms [3]. It is implemented not only through various types of educational activity to obtain a degree, but also through self-education activities aimed at satisfying cognitive interests and needs [1], searching for new hobbies and understanding the prospects for personal and professional growth [22], further self-development [32].

Analysis of the previous scientific studies available makes it possible to single out the negative impact of forced restrictions on the educational and developmental activity of the student youth, who note the complexity and emotional richness of their lives, quit many regular forms of behavior and activities [24], lack of conditions to form the required professional competencies, additional difficulties associated with socialization and professional deformation of a person [15], increased emotional and professional deprivation of students [8], developing the

"fear of failing the educational year" due to switching to distance learning [25; 31]. Researchers explain that the decrease in educational activity among young people, who are not prepared for innovations and transformations, which act as extra factors of frustration, leads to increased anxiety and decreased overall level of social activity [23]. Interestingly, increased anxiety and depression turned out to be characteristic of the humanities students [29], while representatives of technical specializations showed a drop in interest in academic subjects [12]. The observed trend of the growing psychic tension is explained by the increase in the information flow and its chaotic nature, lack of live communication with classmates and direct contact with the teacher during the lesson. Difficulties with holding attention and organizing home learning, inability to ask questions and discuss new material in a group make information difficult to assimilate, reduce interest in students, trigger "user apathy" and fatigue from electronic information flow [2; 6, 13; 18].

Regarding forced self-isolation as a source of a crisis in the professional and personal development of the student youth, researchers note not only its negative, but also positive effect. Thus, students experiencing an atypical (unproductive) crisis experience a number of difficulties associated with emotional distress, conflicts, socio-psychological maladaptation, while educational and developmental activity of students with a typical (productive) crisis is characterized by an increase in learning motivation and quality of education, due to greater concentration on the material under study and increasing interest in the profession mastered [2].

A number of studies emphasize positive interrelationship between the manifestation degree of educational and developmental activity of the student youth under conditions of imposed social restrictions and their individual and personal characteristics. There is higher activity level among students

with compassion, mercy, independence, flexible thinking, perseverance, creativity, and a penchant for mutual assistance [25]; responsibility, organization, purposefulness, initiative, motivation and the need for self-development [10]; characterized by resistance to stress, satisfaction with self-realization, focus on finding effective ways to solve problems, and the potential for psychological flexibility [17].

Theoretical analysis that has been carried out made it possible not only to highlight the negative impact of self-isolation on the educational and developmental activity of student vouth who were forced to change their life and educational plans due to the pandemic, but also to identify individual psychological personal traits that determine its magnitude. However, questions remain open regarding the differences in the manifestation of this form of activity among students in regular life activity and under conditions of self-isolation, as well as questions regarding its determination by psychological characteristics and states of an individual. In order to establish peculiarities of educational and developmental activity under conditions of regular life activity and forced self-isolation and to identify psychological characteristics and conditions that determine it, we carried out a study, the results of which are presented in this article.

Procedure

Data was collected electronically via Google forms anonymously, voluntarily, and free of charge. Respondents familiarized themselves with the purpose of the study and filled in the questionnaires and test methods on their own. The data was processed with "Statistica for Windows 10.0" statistical package.

Sample

338 students (63,9% females and 36,1% males) aged 16-25 took part in the study (M =19,9; SD = 2,1). 82 of them were

secondary vocational education students; 175 of them were undergraduate students (bachelor's program) and 81 of them were undergraduate students (master's program). Students indicated a small town (30.7%), a regional center (51.8%) and a metropolitan city (17.5%) as their place of residence.

Methods

The questionnaire to study socio-demographic characteristics, manifestation of the educational and developmental activity of an individual and emotional comfort level in social isolation (on a scale from 1 to 5 in accordance with the Likert scale). Respondents assessed their educational and developmental activity under conditions of regular life activity and during the period of selfisolation, which manifested itself through activity types aimed at personal growth and acquisition of new skills (obtaining additional education; studying in online schools; design and research activities; participating in scientific competitions and conferences, developing training courses, webinars, master classes, etc.).

The "Personal activity under forced social restrictions" technique (N.V. Usova, I.V. Arendachuk, M.A. Klenova) for studying personality activity characteristics combined into 4 blocks: frustration with the consequences of forced social restrictions, compensatory forms of activity, personal resources and the degree of their manifestation in different spheres of life activity [16].

The "Assessment of psychic activation, interest, emotional tone, tension and comfort level" technique (L.A. Kurgansky, T.A. Nemchin) [11, p. 10-13] for students to assess their activity at the level of psychic states determined by forced social restrictions under conditions of self-isolation.

Results

Comparative analysis of students in groups with a low (n = 135) and high (n = 89) degree of educational and developmental

activity showed significant differences between them, as well as a significant increase in activity during the period of self-isolation among students with low manifestation of activity (Table 1).

A trend towards the increase in educational and developmental activity under conditions of forced self-isolation was revealed: the number of students with a low and medium degree of activity decreased (by 2.7 and 1.34 times, respectively) and the number of highly active students increased significantly (by 2.28 times) (Table 2).

In the course of correlation analysis we studied the interrelationship between the degree of manifestation of educational and developmental activity, psychological characteristics and psychic states of a person under conditions of forced self-isolation among students with low (n = 50; M = 1.68; SD = 0.47) and high (n = 203; M = 4.45; SD = 0.50) degree of activity's manifestation (Table 3).

In this study, determination is understood as conditionality of factors, their active and dynamic interaction. Its essence is understood as recognizing two objectively existing ways of interconditioning [4, c. 22]. Correlation analysis has shown that for students with low educational and developmental activity, its determinants are frustration reactions to consequences of forced social restrictions (r = -0.276), including blocking and interrupting activity (r = -0.303), and emotional states such as psychoactivation (r = -0.386), tension (r = -0.279) and comfort (r = -0.280). The compensatory form of this activity is its replacement (r = -0.286), aimed at family relationships (r = -0.276) and healthcare (r = 0,278). Personal resources (r = 0.281) and, in particular, involvement in the process of life (r = 0.285) also determine its manifestation in students of this group. The educational and developmental activity of students with a high degree of its manifestation under conditions of self-isolation is de-

Table 1

Educational and Developmental Student Activity Under Different Life Activity

Conditions (N=224)

| Manifestation Conditions | Educational and Dev Descriptive St | p-Value of | | |
|--------------------------|---------------------------------------|---------------|---------------|--|
| | low (n = 135) | high (n = 89) | Significance* | |
| In Regular Life Activity | 1.61 (0.48) | 4.43 (0.50) | p < 0.001 | |
| During Self-Isolation | 3.16 (1.25) | 4.24 (1.25) | p < 0.001 | |
| p-Value of Significance | p < 0.001 | p > 0.05 | - | |

^{*} significance of differences is determined with the help of Kolmogorov-Smirnov criteria to compare two empirical samples

Table 2

Educational and Developmental Activity of the Student Youth according to Manifestation Degree under Different Conditions (N = 338)

| Degree of Educational | In Regular Life Activity | | In Self-Isolation | |
|----------------------------|--------------------------|------|-------------------|------|
| and Developmental Activity | Number of People | % | Number of People | % |
| Low | 135 | 40.0 | 50 | 14.8 |
| Medium | 114 | 33.7 | 85 | 25.1 |
| High | 89 | 26.3 | 203 | 60.1 |

Table 3

Descriptive Statistics and Correlations Between the Manifestation Degree
of Educational and Developmental Activity and its Psychological Characteristics
in Young People under Conditions of Self-isolation (N = 253)

| Psychological Characteristics | Mean Values and Standard Deviations of Parameters, M(SD) Educational and Developr | | r- Spearman, p < 0.05 | |
|--|--|--------------|--------------------------|-------------------|
| | low | high | low | high |
| Frustration with the consequences of forced social restrictions: | 2.76 (0.70) | 2.76 (0.51) | -0.28* | -0.08 |
| — focus on the problem | 2.85 (1.01) | 3.05 (0.79) | -0.09 | -0.08 |
| — feeling of overwhelming emotional tension | 3.00 (0.85) | 2.75 (0.73) | -0.20 | 0.08 |
| — blocking and interrupting activity | 2.41 (0.91) | 2.49 (0.85) | -0.30° | -0.13 |
| Compensatory forms of activity: | 2.58 (0.68) | 2.98 (0.62) | 0.19 | 0.01 |
| — virtual activity | 2.75 (0.72) | 3.18 (0.69) | -0.16 | 0.04 |
| — activity substitution | 2.40 (0.88) | 2.77 (0.78) | 0.29 [*] | -0.03 |
| — activity dissimulation | 2.59 (0.82) | 2.98 (0.78) | 0.19 | 0.02 |
| Personal Resources: | 3.17 (0.71) | 3.55 (0.64) | 0.28 [*] | 0.15 [*] |
| — involvement in the process of life | 3.02 (0.84) | 3.52 (0.75) | 0.28 [*] | 0.09 |
| — confidence in controllability of events | 3.77 (0.76) | 3.79 (0.74) | 0.14 | 0.19 [*] |
| — accepting the challenge of life | 2.73 (1.07) | 3.34 (0.82) | 0.19 | 0.08 |
| Activity in different spheres of life activity: | 2.83 (0.38) | 3.10 (0.39) | 0.09 | 0.07 |
| — professional area | 2.87 (0.57) | 3.02 (0.51) | 0.04 | 0.14* |
| — training, education | 2.87 (0.53) | 3.12 (0.47) | 0.12 | 0.10 |
| — family relationships | 3.02 (0.50) | 3.14 (0.45) | -0.28* | 0.00 |
| — social contacts | 2.90 (0.45) | 3.21 (0.50) | -0.19 | 0.00 |
| — recreation, hobbies | 2.88 (0.42) | 3.30 (0.49) | 0.23 | 0.16* |
| — financial situation | 2.84 (0.61) | 2.97 (0.59) | 0.03 | 0.01 |
| — healthcare | 2.72 (0.51) | 3.13 (0.51) | 0.28 [*] | -0.06 |
| — romantic relationships | 2.58 (0.52) | 2.88 (0.59) | 0.12 | -0.01 |
| Emotional comfort level in social isolation | 6.80 (2.39) | 6.46 (2.23) | 0.00 | 0.00 |
| Psychic activation | 13.52 (4.79) | 12.44 (4.28) | -0.39* | 0.00 |
| Interest | 11.48 (4.08) | 9.66 (3.75) | -0.17 | 0.07 |
| Emotional tone | 11.12 (4.56) | 9.65 (4.10) | -0.18 | 0.00 |
| Tension | 10.94 (4.53) | 10.87 (3.63) | -0.28* | 0.06 |
| Comfort | 12.42 (4.47) | 11.08 (4.00) | -0.28 [*] | 0.08 |

termined by personal resources (r = 0,151), including confidence in controllability of events (r = 0,191), as well as focus on satisfying interests in the professional sphere (r = 0,191)

0,144), in the field of recreation and hobbies (r = 0,164).

Classification of characteristic traits under study according to the proximity degree of metric space elements and identification of the structure of the logical relationship between them was carried out with agglomerative cluster analysis using the "nearest neighbour" method (simple single connection); a measure of difference (proximity) is the 1-Pearson r merge coefficient (reflects the degree of connectivity between different clusters and reveals hierarchical clusters [14. p. 3391). Clustered characteristic features are educational and developmental activity of students in self-isolation: level of emotional comfort; generalized psychological characteristics of personal activity under conditions of forced social restrictions (frustration with their consequences, personal resources, compensatory forms of activity and its manifestation in different spheres of life); characteristics of individual emotional states (Fig).

Analysis of statistical relationships between variables identified two interconnected clusters:

— activity of an individual under conditions of forced social restrictions — the core of the cluster is the central dyad of the most closely located components "compensatory forms of activity — activity in different

spheres of life" (fusion coefficient $d_r = 0.12$) and the characteristic "personal resources" is close to it ($d_r = 0.36$). The component that unites these characteristics is "frustration at the consequences of forced social restrictions" ($d_r = 0.62$);

personal psychic states — the core of this cluster is made up of characteristics of emotional states that are quite close in the hierarchy in the dyad "emotional tone — comfort" ($d_r = 0.28$), which, together with interest ($d_r = 0.28$) and tension ($d_r = 0.33$) are combined through the "psychic activation" component ($d_r = 0.38$).

Both clusters are interconnected through the components that unite them ("frustration at the consequences of forced social restrictions" and "psychic activation", $d_r = 0.71$) with educational and developmental activity ($d_r = 0.75$). In general, the system-forming characteristic of all subjects under study is the level of emotional comfort in social isolation ($d_r = 0.82$).

Note that the obtained results are applicable only to the self-isolation conditions and the revealed patterns may change under different conditions.

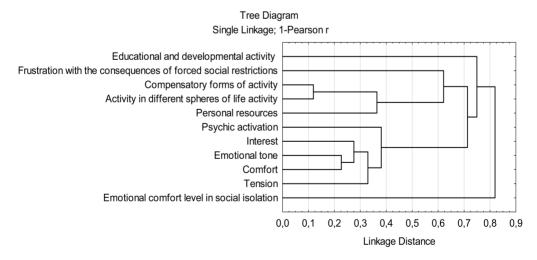


Fig. Graph of connections hierarchy between educational and developmental activity of students and its psychological characteristics (N = 338)

Discussion

The study showed an increase in educational and developmental activity among students during the period of self-isolation, when the learning process was carried out remotely. This tendency turned out to be characteristic even of those students who did not show it under the usual conditions of life activity. We can note the consistency of the obtained results with studies that recognize that students quickly overcame the difficulties of learning at the initial self-isolation stage, adapted to its new conditions and found some advantages for themselves: low emotional stress during learning and minimum level of stress when testing knowledge, individual speed of learning and independence in determining the sequence of mastering subjects, the opportunity to have more rest and entertainment, an increase in the duration of night sleep [7]. By the end of the period of self-isolation, most students showed positive dynamics in assessing the quality of education, managing study and free time; many students positively evaluated the idea of transferring some of the less nonmajor-oriented subjects completely to a distance format and organizing the educational process in a mixed learning format [18].

The features of educational and developmental activity manifestation in students under conditions of forced self-isolation depend on the manifestation degree, conditionality of psychological characteristics and psychic states of an individual. Students with low activity level are subject to frustration at the consequences of forced social restrictions, and if it is necessary to increase productivity, they are dominated by frustration reactions that block activity in achieving the goal due to uncertainty in their actions, and by substitution — transferring needs, desires and activity to other spheres of life. With a decrease in educational and developmental activity, a decrease in interest in one's health is likely (due to transitioning to sedentary lifestyle and restricted active forms of recreation and physical activity [30]) and a shift in emphasis to family relationships. Studies by other authors also show an increase in activity in the sphere of family relations during the period of self-isolation [27]. which can be both a risk factor (aggravate existing contradictions) and a resource factor (provide extra support protecting against feelings of isolation and loneliness, increasing the level of psychological well-being) [5; 26]. Correlation between the results already available and those obtained in the course of this study suggests that students with low educational and developmental activity do not increase it due to closer interaction in the family - both aggravation the destructiveness of family communication, as well as involvement into spending time together with one's loved ones, distract from solving educational tasks and achieving educational goals. At the same time, personal resource mobilization, involvement in the process of life and regarding self-isolation as an opportunity to find new interests, are a source of increasing the level of educational and developmental activity of such students, even if it was not high before self-isolation. The psychological determinants of this form of activity include such stable emotional states as mental activation, tension and comfort. High level of educational and developmental activity in students is conditioned by their ability to mobilize personal resources and confidence in their ability to influence life events, focusing on raising awareness in the professional field, as well as in the field of recreation and entertainment.

In general, educational and developmental activity of students under conditions of forced self-isolation is determined by individual psycho-emotional states. In this case, two generalized factors can be distinguished. The first factor explains the dependence of students' frustration on the consequences of forced restrictions by their ability to use personal resources, be active in the spheres of

life or compensate for it with other forms of activity. It should be clarified that frustration reactions are manifested through focusing an individual's psychic activity on the negative consequences of self-isolation; the degree of manifestation of emotional states that reduce overall activity, and experiences of feelings of despondency and hopelessness; termination of activities to achieve a significant goal. Personal immersion in virtual environment; replacing difficult or unacceptable activities with acceptable ones, replacing inaccessible desires with more accessible ones; deliberate violation of self-isolation rules to solve urgent problems, are compensatory forms of activity. Personal resources that allow students to remain active include the ability to influence outcome of life events, successfully act under conditions of restrictions and use the emerging opportunities to implement their interests and needs, develop and acquire new experience.

The second factor combines meaningful characteristics of activity determined by individual psychic states, where the unifying component is psychic activation, which is influenced by the level of experienced tension. the degree of manifestation of interest, emotional tone and comfort under specific conditions of life. It can be assumed that under conditions of forced restrictions, the working capacity and orientation of students towards active actions are primarily interconnected with tension caused by the restructuring of mental activity in connection with new features of the educational process, as well as with the focus on the information received and enthusiasm for solving educational problems. Manifestation of these characteristics is associated with students' well-being and mood, which determine their involvement and focus on educational activities, as well as with the state of psychological comfort, indicating satisfaction with the results of this activity. The revealed patterns are partially consistent with the results of studies of the psychic and emotional states of students

in the process of adaptation to a new social environment [9] and under learning conditions during the pandemic [8; 17].

Both identified factors are interconnected with educational and developmental activity and explain its conditionality by psychological characteristics of activity under conditions of forced social restrictions and individual's psychic states. At the same time, this form of student activity can determine their emotional comfort in general, despite the need to comply with the requirements of self-isolation.

Conclusions

The educational and developmental activity of students, as one of social activity forms, is not limited to implementation of educational and research activities, it is implemented in a broader cognitive activity (both educational and extracurricular), aimed at boosting the ability for self-development.

The empirical study of educational and developmental activity characteristics under conditions of forced self-isolation made it possible to identify the tendency to increase its degree of manifestation in most students and find its determinants. With a low manifestation degree, they turned out to be more sensitive to changes in learning conditions than their highly active peers; they were distinguished by pronounced reactions of frustration with the consequences of forced social restrictions and replacement of activity with its other types in the field of family relations and healthcare; their personal resources in general and involvement of an individual in the process of life act as factors for increasing activity, while the states of psychic activation, tension and comfort reduce it. For students with high educational and developmental activity levels, its determinants under conditions of self-isolation include personal resources, the major resource being confidence with controllability of events, as well as their focus on the implementation of professional aspirations and satisfaction of interests in the field of recreation and hobbies.

In general, the degree of educational and developmental activity manifestation among students during self-isolation is conditioned by two interrelated factors: 1) individual activity, which is determined by the degree of frustration at the consequences of social restrictions, depends on the ability to be active in different fields of life activity or compensate for it with other forms of activity and to use personal resources; 2) psychic states, i.e. emotional tone, comfort, tension and interests, which act together to determine the degree of individual's psychic activation, which affect their performance and fatigue.

In practical terms, it can be noted that formation of an emotionally comfortable environment for students is an important condition that levels the difficulties that arise in

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the process of their education in forced social isolation, and distance learning can increase educational and developmental activity of young people, expanding the boundaries of the capabilities of the modern system of professional education. In the future, it may be promising to study not only personal characteristics of students' educational and developmental activity under conditions of social restrictions (the emphasis on which is made in this article), but also activity forms of its manifestation, in order to find answers to the question of how self-organization of educational activity is being reconstructed for the student youth at the level of solving problems and building effective communications. Moreover, studies of the individual self-development style in the process of implementing educational and developmental activity can be considered relevant.

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