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Influence of psychological characteristics on the possibilities of personality adaptations of depressed patients in the process of their rehabilitation

Introduction

It has been proved that psychological and medical-social consequences of depression are varied and difficult. They include: high suicide risk, violation of adaptive capacity of patients, decrease in professional status, family disintegration, disability, loss of social ties and decrease in the quality of life in general (A.Yevseyev, 2012; N. Pschuk et al., 2013; A. Borsukov & M.Osipova, 2014; S. Podsevatkina & V.Podsevatkina, 2014; M. Osipova & S. Sinitsin, 2015; T.Bohan et al., 2016; K. Saduakasova , 2017; Z. Rihmer, 2012; S. Kasper, 2013).

Therefore, at the present stage of psychological science development, the study of such phenomenon as psychological rehabilitation potential, which is the carrier of the main source of rehabilitation and re-socialization of the patient, becomes of great importance.

In this regard, during studying patients with depressive disorders of various genesis, it is necessary to pay attention to psychological and pathopsychological characteristics that have influence on the specifics of psychological component of rehabilitation potential and adaptive mechanisms of this category of patients.

We consider that research of psychological rehabilitation potential of patients with depressive disorders will enable to identify the resources of the personality for the implementation of both psychological and integrated medical and social rehabilitation.

It is important to stress that the problem of psychological rehabilitation and socio-psychological adaptation was highlighted in scientific developments and fundamental positions of many domestic and foreign scientists – M. Zotkina (2012), A. Nalchajyan (2013), T. Porokhina (2004), Z. Rihmer (2009), S. Kasper (2004), S. Maksimenko (2007), T. Ayvazyan (2018), F. Berezin (2011), M. Khalak (2012), V. Abramov (2013), A. Gavrilov (2018), N. Maksimova (2014), G. Mozgova (2009), K. Ostrovska (2013).

Despite the wide range of research remains an open question of individual specificity, which defines the limits of potential internal changes in the personality associated with the nature of disease, within which the adaptation of specific personality is possible. The unidentified psychological and pathosychological features of the personality, in particular emotional and cognitive, which can promote prolongation of remission periods and reduce the risk of relapse of the disease, remain. All the above-mentioned gives theoretical and practical significance to the problem of psychological rehabilitation potential and the necessity of its activation in the situation of disease.

In this way, the main purpose of the article is to highlight the results of empirical research of specifics of emotional and cognitive deficit of people with depressive disorders of various genesis.

In our opinion, theoretical and methodological basis of the study of individual characteristics of depressed patients should be the idea

of their functional and content specificity, which affects the formation of psychological rehabilitation potential.

In the definition of V. Shakhray (2006), rehabilitation is a complex of measures aimed to restore person's rights, social status; to improve his health, capacity; to change social environment, living conditions, which were disturbed or restricted for certain reasons.

According to Zh. Porokhina & L. Bayrachna (2004), the processes of adaptation and rehabilitation have much in common, therefore F. Berezin (2011) defines rehabilitation as an aspect of mental adaptation, which ensures the organization of micro-social interaction, the formation of adequate interpersonal relationships, taking into account the expects of the environment and achievement socially meaningful goals. Social and psychological aspects of adaptation are inextricably linked, although sometimes they may not coincide. It has been proved that social adaptation of the person is aimed at the restoration of norms, socially useful relations with social subjects, change in positive sense of communication, behavior and activity. Psychological adaptation is assimilation of socially useful standards of behavior and value orientations, convergence of settings and orientation of the personality with the expectations of the social environment.

V. Kondryukova (2010) points out that the process of adaptation has forecasting function, which evaluates the following actions and carries information about the goal, object, environment and is the basis of all adaptation processes of the personality and efficiency of any activity. The process of adaptation is considered to be positive in the conditions of certain social norms (clearly formulated by society) and is predictable in some sense.

It is important to emphasize if adaptation of the personality to the social environment in the course of his activity does not occur, then it is appropriate to talk about mental disadaptation, the reasons of which are: high rates of modern civilization; high level of nervous, physical and emotional stress; partial or complete mental and personality immaturity, inconsistency of person's behavior with the requirements of society, social norms; conflicts with surrounding environment; emotional experiences; unfavorable working conditions; illness, etc.

We agree with S. Maximenko (2014), who pointed out rightly that the adaptive process affects all levels of body: from molecular to mental regulation of activity.

So, during studying psychological rehabilitation potential (PRP) it is necessary to pay attention to one of the most important of its aspects – the multilevel process of adaptation (A. Nalchajyan, 2010), which is the universal mechanism of ensuring the full functioning of the individual in the environment and is also considered as a «dynamic process of adaption of the organism to new conditions of existence» in modern psychology.

According to L. Nyzhnik and O. Sagirova (2011), psychological rehabilitation of persons with mental disorders should be based on the dynamic functional link between the stored elements of the personality and medical – psychological influence, including the operation of compensatory mechanisms and differentiated disorders of mental functions from the stored core of the personality. Forms and means of influence are determined by nature of mental changes and the level of manifestation of pathological actions, taking into account the main individual characteristics, personality structure and pathological changes in the structure of personality.

Other scientists, O. Starobina & E. Svistunova (2008) include the following components in the structure of psychological rehabilitation potential:

– intellectual component due to which rehabilitants understand problems connected with their illness, disability and the possibility to solve them through rehabilitation measures. Intellectual rehabilitation potential depends upon the state of cognitive processes and the level of intelligence;

– emotional-volitional component which determines the energy of a rehabilitant in achieving goals and objectives of the process of rehabilitation, sensual attitude to these goals and tasks, as well as to individual rehabilitation measures and depends upon the individual psychological characteristics of the personality, his emotional states and volitional processes;

– motivational component that focuses on achieving goals and objectives of rehabilitation process and represents a complex of goals, settings, motives and needs actual for a rehabilitant in the aspect of different outcomes, the results of rehabilitation and depends

upon value-motivational characteristics of the personality, system of individual relationships in general

In our opinion, one of the urgent tasks of psychological rehabilitation, the principles of which consist in the unity of biological and psychological, implementation of rehab programs and partnerships, is the development and implementation of effective methods for the restoration of personal settings aimed to overcome the consequences of illness and compensation for lost both professional and social adaptive qualities among persons with neuropsychiatric diseases. According to this approach, the return to health involves eliminating the effects of experiences, undesirable settings, uncertainty in own abilities, anxiety about the possibility of deterioration and relapse of disease.

In this way, we have presented the relevance of theoretical substantiation of definition of psychological rehabilitation potential of people with disabilities by analyzing literary sources and have proved that there is no clear view for definition of psychological rehabilitation potential for depressive disorders. There remains an open question about individual specificity, defining the limits of potential internal changes in personality and associating with the nature of depressive disorder, in the frame of which adaptation of the patient is possible. Psychological factors associating with peculiarities of the course of the disease, which promotes prolongation of remission periods and reduces the risk of relapse remain unidentified.

It is important to note that a variety of theories and therapeutic approaches set this problem in a number of the most complex and dictates the need for a comprehensive analysis of resources destroyed by the disease, as well as the definition of psychological rehabilitation potential in order to improve rehabilitation programs that contribute to the restoration of psychological health and the integration of patients with depressive disorders into society.

Thus, for modern psychiatry and clinical psychology, it is important to study the specifics of psychological rehabilitation potential and adaptive mechanisms of personality for developing the system of psychotherapeutic measures aimed to improve the social functioning of depressed patients.

Analysis of scientific sources shows that early detection of depression and timely initiation of treatment greatly improves the outcome of therapeutic intervention. On the contrary, prolonged stay in morbid condition contributes to chronicity of pathological process, increases the risk of developing repeated depressive episodes in the future and significantly impairs the prognosis of the disease in the whole (M. Petrova, L. Kruglov, N. Antonova, 2013; M. Osipova & V. Zaitseva, 2015; G.Goodwin, 2013). Depression is a heterogeneous disease that requires treatment not only of emotional symptoms, but also restoring social functioning and quality of patient's life (M. Fava et al., 2006; S. McClintock et al., 2011; DSM-5, 2013). It is known that despite the marked improvement of patient's condition in the result of therapy, more than 50% of treated patients still report significantly a decrease in the quality of life (S. Rosenzweig-Lipson et al., 2007; R. McIntyre et al., 2013; C.Gasse et al., 2013; W. Ishak et al, 2014). Therefore, attention to full functional recovering of the patients gives a chance to improve their daily lives (T. Greer et al., 2010; W. Ishak et al., 2011).

As one of the important components of rehabilitation potential is its psychological component (psychological rehabilitation potential – PRP), it can be represented as a complex of individual and psychological features of the personality (cognitive, motivational, emotional, etc.) and socio-psychological factors which are the main source of rehabilitation and re-socialization of the patient as a result of beginning and development of chronic disease (M. Khalak, 2012).That's why for establishing the characteristics of PRP, it is important to understand the specificity of emotional and cognitive deficits of patients with depressive disorders.

Methodology

The study was held on the basis of the psychoneurological dispensary of Specialized multi-profile hospital № 1 in Dnipro. The sample of the current research consisted of 354 persons, among which 270 were patients with depressive disorders (91 with neurotic depressive disorders, 86 with organic depressive disorders and 93 with endogenous depressive disorders) and 84 persons from general population (healthy).

To answer the research questions the following data tools were used: Hamilton Depression Rating Scale (HDRS), Hamilton Anxiety Rating Scale (HARS), Montreal Cognitive Assessment Scale (MoCA); mathematical-statistical methods of data processing on the basis of the package of statistical software IBM SPSS-20 (F – criterion, Student's t-test) were used as well.

Findings and Discussion

Thus, it's possible to analyze results of the study of emotional dysfunctions among patients with depressive disorders depending upon genesis of their disease. First of all, the levels of depression among patients of the studied groups were established.

According to M. Hamilton's inventory, the majority of patients with *neurotic* depression have been diagnosed with mild level of depression (72.53%), 23.08% – with moderate and 4.40% – with severe. Among patients with *organic* pathology, 56.98% of testees had mild level of depression, 37.21% – moderate and 5.81% – severe. Most patients with *endogenous* genesis of disease have been diagnosed with moderate level of depression (52.69%), 27.96% – with severe and only 19.35% of testees had mild level of depression.

Obtained results were verified statistically. Thus, probable dominance of mild level of depression among subjects with *neurotic genesis* of disease was detected in comparison with other groups ($p < 0.01$, DK = -1.05, MI = 0.08 and $p < 0.0001$, DK = 5.74, MI = 1.53, respectively).

It is important to stress that among patients with *organic depression*, moderate ($p < 0.01$, DK = 2.07, MI = 0.15) and mild $p < 0.0001$, DK = 4.69, MI = 0.88) levels of depression dominated. The group of patients with *endogenous genesis* of disease was likely to have prevalence of moderate ($p < 0.01$, DK = -1.51, MI = 0.12 and $p < 0.0001$, DK = -3.59, MI = 0.53, respectively) and severe ($p < 0.0001$, DK = -6.82, MI = 0.76 and $p < 0.0001$, DK = -8.03, MI = 0.95, respectively) levels of depression in comparison with other groups.

In order to provide full picture of pathosychological characteristics of patients with different genesis of disease, clinical and psychopathological analysis of the structure of depression was conducted.

Data analysis allowed to establish that in the group of patients with *neurotic* depression predominant types of violations were «phobic depression» (59.23 ± 14.62)%, which characterized by various fears, as well as «agitated depression» (52.67 ± 15,28)%, which characterized by feeling of anxiety, tension and trouble.

In *organic* genesis of depression «somatic depression» (71.40 ± 16.45)% predominated, which manifested in the certain symptoms of a body (disorders of the gastrointestinal tract, muscle pain, bronchial asthma, vascular dystonia, etc.).

Among patients with *endogenous* depression, «non – dynamic type of depression» (52.47 ± 14.98 %) predominated, which manifested in slowing down, difficulties in mental functioning and motor reactions. Also, «agitated» (53.85 ± 15.95%) and «somatic» (52.50 ± 14.17%) forms of depressive disorders were observed.

Following obtained results were also verified statistically. Thus, predominance of phobic type of depressive disorder was identified among patients with *neurotic* depression ($t = 2.713$, $p < 0.01$); somatic type of depression – among patients with *organic* depression ($t = 1.952$, $p < 0.05$) and non – dynamic type of depressive disorder – among patients with *endogenous* depression ($t = 2.241$, $p < 0.05$).

To understand influence of depressive symptoms on psychological rehabilitation potential, more detailed analysis of manifestation of depression among patients with different genesis of disease was conducted.

Analysis of research results allowed to establish that among patients with neurotic depression such characteristics as obsessive-compulsive symptoms (88.00%; 1.76 ± 0.64 points); psychiatric anxiety (76.00%; 3.04 ± 0.82 points), early awakening (76.00%; 1.30 ± 0.77 points) and difficulty in falling asleep (67.00%; 34 ± 0.64 points), May somatic disturbances (71.50% ; 1.43 ± 0.67 points), excitement (58.50%, 2.34 ± 0.98 points) and tendency to be fixed on disease symptoms (58.25%; 2.33 ± 1.34 points) had the highest indexes . Symptoms characterized daily fluctuations in well-being (6.50%, 0.13 ± 0.34 points), weight loss (6.00%, 0.80 ± 0.86 bolus) and paranoid symptoms (14.00 %; 0.56 ± 0.45 points) had lower indexes.

Among patients with *organic* genesis of disease, such depressive symptoms as general somatic characteristics (93.50%, 1.88 ±

0.45 points), early awakening (82.50%, 1.65 ± 0.66 points) and difficulty with falling asleep (59.50%, 1.19 ± 0.69 points), decreasing in productivity in work and activity (76.00%, 3.05 ± 0.94 points) and somatic anxiety (64.25%, 2.57 ± 1.02 points) dominated. Paranoid symptoms (11.25%, 0.45 ± 0.68 points), daily oscillations of well-being (14.50%, 0.29 ± 0.57 points) and symptoms of derealisation / depersonalization (18.00%; 0.72 ± 0.92 points) had the lowest indexes.

In the group of patients with *endogenous* depression such symptoms as decreasing productivity in work and activity (80.25%, 3.20 ± 0.83 points), symptoms of inhibition (77.00%, 3.08 ± 1.31 points) , sleep disturbance or difficulty in falling asleep (74.50%, 1.49 ± 0.77 points), early awakening (62.00%, 1.24 ± 0.80 points) and frequent waking at night (54.50%; 1.09 ± 0.79 points), actual weight loss (62.50%, 1.25 ± 0.92 points), decreasing libido (61.50%, 1.23 ± 0.97 points), depressed mood (59.25%, 2.37 ± 1.01 points), excitement (52.75%, 2.11 ± 0.97 points), mental anxiety (50.75%, 2.03 ± 0.98 points), and daily oscillations of well-being (50,50%; 1,01 ± 0,97 points) prevailed. However paranoid symptoms (11.25%, 0.45 ± 0.58 points) and symptoms of derealisation / depersonalization (30.75%, 1.23 ± 0.90 points) manifested less than all others.

Comparison of research results of testees with different genesis of depressive disorder allowed to establish: patients with *neurotic* depression had bright manifestation of hypochondria symptoms ($t = 3.773$, $p < 0.0001$ and $t = 3.6776$, $p < 0.0001$ appropriately), mental anxiety ($t = 9.578$, $p < 0$, 0001 and $t = 7,590$, $p < 0.0001$ appropriately), May somatic disorders ($t = 2.821$, $p < 0.005$ and $t = 3.836$, $p < 0.0001$ appropriately), obsessive-compulsive symptoms ($t = 7.536$, $p < 0$, 0001 and $t = 5.960$, $p < 0.0001$ appropriately), but they had lower indexes of such symptoms as apathy ($t = 6,478$, $p < 0.0001$ and $t = 8,248$, $p < 0.0001$ appropriately), waking at night ($t = 2.666$, $p < 0.008$ and $t = 2.913$, $p < 0.004$ appropriately) and criticality violation($t = 3.405$, $p < 0.001$ and $t = 3.470$, $p < 0.001$ appropriately) in comparison with patients suffering from organic and endogenous genesis of depression, respectively.

It is important to note that patients with *organic* depression suffered from late insomnia($t = 3,277$, $p < 0.001$ and $t = 3.757$,

p <0.0001 respectively), somatic anxiety(t = 5.362, p <0.0001 and t = 4,428, p <0, 0001 respectively), general somatic symptoms (t = 11,806, p <0.0001 and t = 11.872, p <0.0001 respectively), but they had lower level of excitability (t = 4.130, p <0.001 and t = 2.711, p <0.007, respectively) in comparison with patients who have neurotic and endogenous kinds of depression, respectively.

Patients with *endogenous* genesis of depressive disorders differed from patients with organic depression with higher indexes of such symptoms as derialization / depersonalization (t = 3.721, p <0.0001), early insomnia (t = 2.797, p <0.006), weight loss (t = 2,187, p <0,05), significant daily oscillations of well-being (t = 2,362, p <0.004) and mental anxiety (t = 2.924, p <0.004). It was determined that index of actual weight loss was prevalent among patients with endogenous depression in comparison with patients suffering from neurotic and organic depression (t = 2.762, p <0.006 and t = 5.332, p <0.0001, respectively) and was higher among patients with neurotic depression – in comparison with the indicators of patients who have organic depression (t = 2,393, p <0,01).

Generalization of research results of studied groups of patients allowed to present features and manifestation of depressive symptoms, depending upon genesis of disorder in the following way: «endogenous depressions > organic depression > neurotic depression». These symptoms included: feeling of guilt (t = 1.992, p <0.05 and t = 3.004, p <0.005 respectively), suicidal intentions (t = 3.094, p <0.002 and t = 2.321, p <0.021 respectively), inhibition (t = 6.409 , p <0.0001 and t = 4.995, p <0.0001 respectively), the presence of daily oscillations of well-being (t = 2.362, p <0.01 and t = 5.708, p <0.0001, respectively). It is important to stress that total score was higher among testees with endogenous depression than with organic and neurotic depression (t = 4.879, p <0.0001 and t = 5.481, p <0.0001, respectively).

Thus, the obtained data show that patients with endogenous depression characterized by higher emotional deficit than patients with organic and neurotic genesis of disease, it is also necessary to pay attention to this fact while determining psychological rehabilitation potential of patients with depressive disorders of various genesis.

Analysis of anxiety and its components is possible due to using M. Hamilton's method (HARS).So the following results were obtained. Patients with *neurotic* depression characterized by significant sense of fear (3.71 ± 0.45 points), anxiety (3.67 ± 0.66 points), high indexes of vegetative and cardiovascular symptoms (2.63 ± 0.93 and 2.03 ± 1.03 points respectively), tension (2.54 ± 1.18 points), depressive mood (2.34 ± 1.55 points) and also anxiety behavior during conversation (2,11 ± 0,54 points).

Testees with *organic* depression had specific intellectual disorders (3.10 ± 0.82 points), somatic muscle and sensory symptoms (3.09 ± 1.03 and 2.75 ± 1.30 points respectively),cardiac vascular symptoms (2.08 ± 1.05 points), sleep disturbances (2.45 ± 1.25 points), depressive mood and tension (2.11 ± 1.88 and 2.11 ± 1.64 points respectively).

Among patients with *endogenous* genesis of disease the following anxiety symptoms dominated: tension(3,05 ± 0,88 points),feeling of fears (2,88 ± 0,95 points), vegetative symptoms (2,63 ± 0,93 points), depressive/anxiety mood(2.45 ± 1.44 and 2.37 ± 1.16 points respectively) and also insomnia (2.31 ± 1.37 points).

Statistical analysis of results allowed to establish that symptoms of anxiety and feeling of fears were more significant among patients with *neurotic* depression in comparison with patients suffering from endogenous ($t = 9{,}331$, $p < 0.0001$ and $t = 7.532$, $p < 0.0001$ respectively) and organic depression ($t = 12{,}623$, $p < 0{,}0001$ and $t = 13{,}165$, $p < 0{,}0001$ respectively), and also prevailed among patients with endogenous depression in comparison with patients who have organic depression ($t = 3{,}354$, $p < 0{,}001$ and $t = 5{,}968$, $p < 0.0001$ respectively).

It is important to note that such index as sleep disturbance was more significant among patients with *endogenous* and *organic* depression than in the group of testees with neurotic ($t = 2.883$, $p < 0.004$ and $t = 3.722$, $p < 0.0001$, respectively) depression.

Symptoms of tension were more significant among patients with endogenous depression (in comparison with results of other groups) ($t = 3.285$, $p < 0.001$ and $t = 4.801$, $p < 0.0001$ respectively) and among patients with neurotic depression in comparison with testees who suffer from organic depression($t = 2.016$, $p < 0.05$).

Intellectual disorders and somatic (muscle) symptoms were more pronounced among patients with *organic* depression in comparison with patients who have neurotic ($t = 18{,}332$, $p < 0.0001$ and $t = 14{,}702$, $p < 0.0001$ respectively) and endogenous ($t = 6.352$, $p < 0.0001$ and $t = 11.445$, $p < 0.0001$, respectively) depression as well as among patients with endogenous depression in comparison with testees who have neurotic genesis of disease ($t = 7.977$, $p < 0.0001$ and $t = 2.929$, $p < 0.004$, respectively) .

It was found out that somatic (sensory) symptoms ($t = 4{,}518$, $p < 0.0001$ and $t = 4.679$, $p < 0.0001$, respectively) were prevalent among patients with *organic* genesis of disease, whereas vegetative symptoms – among patients with *neurotic* and *endogenous* depression ($t = 6{,}514$, $p < 0{,}0001$ and $t = 6{,}546$, $p < 0{,}0001$ respectively).

It is also important to emphasize that respiratory ($t = 3{,}596$, $p < 0.0001$ and $t = 3.686$, $p < 0.0001$ respectively), gastrointestinal ($t = 2.817$, $p < 0.005$ and $t = 2.466$, $p < 0.01$ respectively), urogenital ($t = 4.899$, $p < 0.0001$ and $t = 4{,}593$, $p < 0.0001$, respectively) symptoms of anxiety manifested more among testees with endogenous depression(comparing with other genesis of disease), while indicative cardiovascular symptoms – among patients with *neurotic* and *organic* depression ($t = 4{,}072$, $p < 0{,}0001$ and $t = 4{,}263$, $p < 0{,}0001$, respectively).

Summing up the results of the study of emotional state, it can be argued that vegetative symptoms (such as hyperhidrosis, hypothermia, myalgia, tachycardia, etc.) predominate among patients with neurotic and endogenous depression and somatic symptoms are characteristics for patients with organic depression. It is important to emphasize that the obtained data on the emotional state should be taken into account in determining psychological rehabilitation potential of patients with depressive disorders of various genesis.

Data analysis (according to Montreal Cognitive Assessment Scale (MoCA)) allowed to establish that 90,11% of patients with *neurotic* depression had the total score in the range of 26-30 points, which corresponds to normative results and indicates a lack of cognitive impairment. But 9.89% of patients had the total score in the range of 18 – 25 points, which indicates moderate cognitive impairment.

Individuals with the total score less than 18 points were not identified.

Normative indicators of cognitive processes (total score – 26-30 points) were established among 65.12% of patients with depressive of *organic* genesis, 33.72% of testees had moderate cognitive deficiency (18-25 points) and 1.16 % had a significant level of cognitive dysfunction.

The majority of patients with depressive disorders of *endogenous* genesis (75.27%) were characterized by a lack of cognitive deficits; among 24.73% of testees moderate cognitive dysfunction was observed; it is important to note that there were no patients with significant cognitive impairment.

Comparing the total indicators of the level of cognitive deficits among patients with depressive disorders of various origins, it was found that conservation of cognitive functions (according to normative indices $N \geq 26$) was observed among patients with *neurotic* depression more than among testees with endogenous ($p < 0.005$, DK = 0.78, MI = 0.06) and organic ($p < 0.0001$, DC = 1.41, MI = 0.18) depression, and the number of patients with cognitive conservation who have *endogenous* depression was significantly higher than among patients with organic depression ($p < 0.05$, DK = 0.63, MI = 0.03). It was also discovered that the number of patients with moderate cognitive dysfunction was prevalent among testees with *organic* and *endogenous* depression in comparison with patients suffering from neurotic depression ($p < 0.0001$, DK = -5.33, MI = 0.63) and ($p < 0.005$, DK = -3,98, MI = 0,30, respectively).

Thus, it was found that patients with *neurotic* depression are characterized by more favorable psychological rehabilitation potential in the aspect of cognitive symptoms than patients with *organic* and *endogenous* depression.

For more detailed information about specific features of cognitive dysfunction, an analysis was performed on certain scales of MoCA inventory. All patients with depressive disorders of *neurotic* genesis were characterized by preservation of function of recognition and naming objects, as well as orientation to place, time and space. Also the majority of patients with neurotic depression coped successfully with the following tasks: «alternation skills» (90,11 ± 3,15)%, «visuospatial abilities» (95,60 ± 2,23)%, «visual – constructive

skills» (86.81 ± 3.50)%, «reverse digital series» (98.90 ± 1.15)%, «generalization» (86.81 ± 3.50)% and «postponed repetition» (83.52 ± 3,77)%. Tasks aimed to test attention (78,02 ± 4,06)%, serial subtraction (75,82 ± 4,14)%, repetition of the phrase (79,12 ± 4,02)% and verbal fluency (67.03 ± 4.28)% were more difficult for this group of testees.

Among patients with *organic* depression, 91,25% of people named animals successfully; 93,02 % had correct orientation to place, time and space, 80,23%completed visuospatial tasks (three dimensional cube copy); 70,93% fulfilled visual-constructive tasks (clock – drawing task) and 81,40% of people named digits forward and backward. The difficulties were identified in the following tasks: «attention» (59,30 ± 4,45)%, «serial subtraction from 100 to 7» (55,81 ± 4,36)%, « verbal fluency» (58,14 ± 4.43%), «repetition of the phrase» (62.79 ± 4.51%), «abstraction» (68.60 ± 4.52%), «alternation task « (68.60 ± 4.52%) and «short –term memory recall» (65,12 ± 4,52)%.

Among patients with *endogenous* depression, the smallest difficulties observed while completing the following tasks: «orientation» (97.85 ± 1.56) %, «naming animals» (96.77 ± 1.89)%, «naming digits forward and backward» (92.47 ± 2.76%), as well as» short –term memory recall « (89.25 ± 3.18)%, «alternation skills» (86.02 ± 2.76)% and «repetition of the phrase» (84.95 ± 3, 58)%. The task on verbal fluency was the most difficult – only 47.31% of patients successfully coped with it. There also were difficulties in fulfilling tasks for «attention» (79.57 ± 3.91)%, «serial subtraction» (75.27 ± 4.07)%, «abstraction» (74.17 ± 4.10)% , «visuospatial» and «visual – constructive» tasks (80.65 ± 3.86)% and (78.49 ± 3.96)%, respectively).

According to F – criterion statistical analysis, it was found that patients with *neurotic* depression differed from patients of other groups with higher conservation of visual-constructive (($p < 0.001$, DK = -0.76, MI = 0.06) and ($p < 0.001$, DK = -0.74, MI = 0.06) respectively) and visuospatial (($p < 0.005$, DK = -0.88, MI = 0.07) and ($p < 0.05$, DK = – 0.44, MI = 0.02) respectively) skills and abstraction (($p < 0.002$, DK = 1.02, MI = 0.09) and ($p < 0.01$, DK = 0.68, MI = 0,04) respectively).

It was also revealed that patients with *organic* depression had more difficulties (in comparison with patients suffering from neurotic and endogenous depression) in performing the following tasks: «alternation skills» ((p <0,00025, DK = -1,18, MI = 0,13), and (p <0.002, DK = 0.98, MI = 0.09) respectively), «attention» ((p <0.0035, DK = 1.19, MI = 0.11) and (p <0.001, DK = 1.25, MI = 0.13) respectively), «serial subtraction» ((p <0.0025, DK = -1.33, MI = 0.13) and (p <0.003, DK = 1.30 , MI = 0,13) respectively), «repetition of the phrase» ((p <0,007, DK = -1,00, MI = 0,08) and (p <0,0004, DK = 1,31, MI = 0 , 15) respectively), «short –term memory recall» ((p <0.0026, DK = 1.08, MI = 0.10) and (p <0.0001, DK = 1.37, MI = 0.17) respectively) and «naming digits forward and backward» ((p <0.0001, DC = -0.85, MI = 0.07) and (p <0.015, CC = 0.55, MI = 0.03), respectively).

It is important to stress that patients with *endogenous* depression differed from patients with neurotic depression with more violations in intellectual sphere, in particular in violation of abstracting process (t = 2,117, p <0.035); probable differences were found for all indicators showing more significant cognitive dysfunctions among patients with endogenous depressions in comparison with the control healthy group (p <0.01).

Consequently all above mentioned material allow to say that the data about cognitive deficits should be taken into account in the determination of psychological rehabilitation potential with depressive disorders of various genesis.

Conclusion

The article presented psychological and pathopsychological characteristics of patients with depressive disorders of various genesis: neurotic, organic and endogenous. The prevalence of mild depression among testees with neurotic genesis of disease, moderate level – among patients with organic genesis of disease, moderate and severe depression among patients with endogenous genesis of disease was established. Clinical and psychopathological analysis of the structure of depression allowed to state the predominance of phobic type of depressive disorder among patients with neurotic depression, somatic – among patients with organic depression and non – dynamic – among testees who have endogenous depression.

The obtained data allowed to assert that patients with endogenous genesis of disease were characterized by greater emotional deficit in comparison with testees suffering from organic and neurotic depression. Cognitive dysfunction of patients with depressive disorders were investigated. Thus, it has been established that patients with neurotic depression were characterized by more favorable psychological rehabilitation potential in the aspect of cognitive sphere than patients with organic and endogenous depression.

The prospects of further research in this direction we foresee in studying gender and age specifics of psychological rehabilitation potential of patients with depressive disorders; definition of triggers for reduction of rehabilitation potential, mechanisms of adaptation and compensation among patients with depressive disorders.

Summary

Psychological and pathosychological features of patients with depressive disorders of different genesis: neurotic, organic and endogenous are described. Clinico-psychopathological analysis of depression structure allowed to state the advantage of phobic type of depressive disorder among patients with neurotic depression, somatic – among patients with organic depression and non-dynamic – with endogenous depression. The obtained data allowed to establish greater emotional deficit among patients with endogenous genesis of depression than among patients with organic and neurotic depression. Cognitive dysfunctions of depressed patients were studied. It has been established that according to cognitive signs, patients with neurotic depression are characterized by more favorable psychological rehabilitation potential than patients with organic and endogenous genesis of depression.

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Cognitive representation of the disease, sense of coherence and health behavior of women and men with type 2 diabetes mellitus

Intorduction

Diabetes is one of the rapidly growing global health threats. Currently, the number of people suffering from diabetes in Poland is estimated at around 3 million, and it is assumed that over 700 000 people in this group are not aware that they are suffering from diabetes. Estimates illustrate that after the age of 60, one in four people is affected by the disease, and in the group of people older by another twenty years, almost half of the respondents suffer from diabetes. In children and adolescents in Poland, type 1 diabetes affects almost 200 000 people (Czupryniak and Strojek, 2015; Nowakowski, 2002; Tatoń, Czech, Bernas, 2001).

Diabetes is usually defined as a group of metabolic diseases characterized by hyperglycemia resulting from a defect in insulin secretion and/or action. Thus, an important element of the clinical picture is hyperglycemia, which is determined at a level equal to or higher than 126 mg/dl in a fasting test (double determination, i.e., on two different days); above 200 mg/dl in a 75 g glucose test after two hours; and any occurrence of glucose concentration equal to or higher than 200 mg/dl within 24 hours (Czupryniak and Strojek, 2015; Nowakowski, 2002).

According to the World Health Organization (WHO) division of diabetes, there are still four common types of diabetes: type 1, type 2 diabetes, gestational diabetes (Van Lieshout, and Voruganti, 2008) and other types of diabetes. This disease may occur after the use of certain drugs, as a result of pancreatic diseases, genetic and immunological conditions, or due to qualitative deficiencies in nutrition (Nowakowski, 2002; Skupień and Małecki, 2007).

Diabetes mellitus is most often perceived by patients as a limitation that hinders functioning, causes a change in the current

lifestyle, imposes the need for control, at least in relation to one of the parameters, which is the concentration of glucose. These difficulties also relate to the need for constant taking of medicines, medical visits, observance of a diet, etc. (Czupryniak and Strojek, 2015, 2011; Korzeniowska-Jabłecka, 2008; Koziarska-Rościszewska, 2008; Nowakowski, 2002; Tatoń, Czech, Bernas, 2008).

Type 1 diabetes is most commonly diagnosed in childhood and adolescence. The cause is considered to be the destruction of beta cells in the pancreas, which causes the lack of insulin conditioning proper metabolic changes, or insulin may have a defective structure, which prevents the transport of glucose to the cells of the body. Insulin therapy is used in the treatment of type 1 diabetes, where the patient regulates doses depending on the current level of glycemia, which depends on the type and amount of food consumed and physical activity. Insulin is administered by injection or by means of a personal insulin pump to a subcutaneous infusion.

Type 2 diabetes is diagnosed in about 90% of the population. This usually happens after the age of 30, although it is increasingly often diagnosed in the developmental period (Peterson, Silverstein, Kaufman, Warren-Boulton, 2007). This type of diabetes is most commonly associated with obesity. Reduced, relatively normal or excessive insulin secretion is observed in the patients, but their cells show resistance to insulin activity.

The management is very similar in the treatment of diabetes, both in type 1 and type 2, despite their different pathogenesis and course. The primary aim of treatment is to prevent complications of this disease, especially vascular and those associated with acute hyper-or hypoglycemic conditions. In order to obtain the assessment of metabolic control of diabetes, the percentage of glycated hemoglobin HBA1C is used (Czupryniak and Strojek, 2015; Otto-Buczkowska, 2003; Tatoń, 1982; Tatoń et al., 2008).

Excess glucose is removed from the body through the kidneys to the urine. Persistent impaired glucose metabolism gradually leads to numerous systemic dysfunctions, fatigue and even life-threatening coma. Elevated blood glucose levels and the presence of sugar in urine contribute to the reduction of the immune defense against bacterial infections and fungi. Diabetes causes changes in blood

vessels and nervous system and gradually leads to diabetic polyneuropathy. Diabetes is associated with damage to the eyesight, until the possibility of its loss, kidney damage, cerebral strokes, risk of dementia, gangrene as a result of difficulties in wounds healing, amputations of lower limbs, sexual dysfunctions. Depression is two to three times more commonly diagnosed in type 1 diabetic patients than in the general population. In modern therapeutic approaches to diabetes, the treatment is also targeted at co-morbidities such as ischemic heart disease, hypertension, kidney disease, anxiety syndromes, depression, etc. (Anati-Otong, 2007; Bishop, 2007; Czupryniak and Strojek, 2015; Hu, Amoako, Gruber and Rossen, 2007; Langley-Ewans and Carrington, 2006; Sheridan and Radmacher, 1988; Tatoń et al., 2008). Depression in an advanced stage of the disease may be associated with vascular pathology in the disease, co-morbidities and an increased risk of early death, but the nature and direction of these relationships are not sufficiently understood and explained (Brown, Majumdar, Newman, Johnson, 2006; Cleaver and Pallourios, 1994). It was revealed that a sense of support in the form of perceived availability of help from family and friends protected against depression and indirectly affected emotional functioning by less catastrophic perceptions of the disease (Starowicz, 2009).

The risk factors for this disease include a number of biological and environmental factors, and recognize the importance of psychological factors, including the role of stress and especially trauma (Cleaver and Pallourios, 1994; Hu et al., 2007; Langley-Evans and Carrington, 2006; Martz and Livenh, 2007; White, Terry, Troup, Rempel, 2007). Patients with diabetes and depression report more stressful events in the past than those without depression (Pibernik-Okanovic, Szabo, Begic, Metelko, 2005).

Clinical and psychosocial problems of diabetic patients

People with diabetes usually have four categories of stressors:

– cognitive stressors, the appearance of which is related to the understanding of the disease itself, its symptoms, treatment and limitations that affect many spheres of life.

– emotional stressors, which are associated with feelings of harm, guilt, disability, helplessness, reduced self-esteem and the belief that the diagnosis is the ultimate, unchanged.

– behavioral stressors, associated with the medical regime imposed by the disease-strict adherence to the recommendations. An additional stressor is the necessity of being on standby and the ability to cope with situations requiring immediate intervention-hypoglycemia or ketosis. Patients are also burdened by the need to make their own medical decisions based on self-control.

– social stressors, which concern functioning in different social groups-such as a parent, a spouse, an employee. Diabetes often forces occupational limitations, which increases the feeling of stress (Tatoń et al., 2008).

The negative role of stress in the course of diabetes is documented by the results of many studies. It turned out that the quality of life of diabetic patients was affected to a large extent by dietary restrictions, drugs, current symptoms of diabetes and coexisting diseases (Eren, Olzen, Sahin, 2008). The evaluation of the quality of life of diabetic patients is strongly influenced by depression. A higher level of depression was associated with the reporting of more severe symptoms of diabetes, less involvement of the patient in own activity in the treatment, lower health control and lower level of physical functioning. With regard to type 2 diabetics, the improvement of health-dependent quality of life is one of the priorities of treatment aimed at normalizing metabolic parameters and thus improving the quality of life.

Patient's cooperation in the process of diabetes treatment and prevention of progression of adverse somatic and psychosocial consequences is conditioned by many factors, depending on individual characteristics of the patient, age, gender, clinical course of the disease and quality of treatment, as well as widely understood social conditions. Adaptation in the process of this disease is physically unpleasant, continuous control of glucose levels, treatment, prevention of health deterioration, as well as the process of the patient's adaptation to various limitations (Chojnacka-Szawłowska, 2012; Korbel, Weibe, Berg, Palmer, 2007).

The importance of cognitive representation of disease in the treatment process

It was recognized that people cope with the possibility of health deterioration or the risk of disease using the perception of this threat, also known as the cognitive representation of disease / health hazard. Integrally with cognitive processes, emotions are incorporated through an emotional response to the perception of this threat, also known as an emotional representation of a threat to health or disease. These processes also occur in diabetic patients (Lange and Piette, 2006; Singh, 2011; Starowicz, 2009).

The concept and model of self-regulation (Leventhal, Meyer, Nerenz, 1980; Leventhal, Nerenz, Steele, 1984; Singh, 2011), also known as the Common-Sense Model of Illness (CSM), on the basis of many subsequent studies, explains and confirms the role of beliefs, emotions and behaviors that determine participation in the treatment and functioning of a person as a patient (Hagger and Orbell, 2003). Several categories of variables involved in this functioning were distinguished as very important in the self-regulation model. These include cognitive processes involving the perception of the risk of susceptibility to disease, as well as the ability to act and manage disease/ and emotional responses to disease. Another selected category concerns intentionality of action, which, according to the authors, is based on the perception of obstacles and benefits of action aimed at avoiding disease. The next variables included views on pro-health behaviors or behavior that is hazardous to health. The last category was defined as perceptions of one's own competence or effectiveness in health-related activities. In the self-regulation model (Leventhal et al., 1984), five dimensions were characterized, forming a set of beliefs about the representation of the disease, such as: 1) cause, 2) consequences, 3) identification of disease, 4) duration and 5) control of treatment.

Ad 1. The cause represents the belief that biological or psychological factors are responsible for the disease.

Ad 2. Consequences are beliefs that a person has about the impact of a disease on their quality of life.

Ad 3. Identification is a concrete or abstract notion that a person uses to describe their illness.

Ad 4. Duration refers to a person's beliefs as to how long the illness will affect their life.

Ad 5. Controllability refers to the ability of a person to control treatment by themselves or with the help of others.

According to Leventhal et al. (1984), a person's attitude to external or internal information develops a parallel process of emotional representation of the disease. The analysis of information allows the person to build: a plan for managing emotions in response to the disease and an active process of self-regulation behavior. The aim of the coping strategy is to reduce the negative aspects of the disease or to protect against them. In turn, coping strategies influence the representation of the disease and the current evaluation of coping effectiveness. In this process, the patient assesses the effectiveness of coping strategies used in the cognitive and emotional system. The person assesses whether or not the coping strategies bring them closer to the representation of the disease. The results of the studies confirm the important role of the quality of disease representation in the process of treatment and adaptation to various diseases, including diabetes (Leventhal, Philips, Burns, 2016; Moss-Morris, Weiman, Petrie, Horne, Cameron, Buick, 2002; Singh, 2011; Starowicz, 2006). In adolescents it was noted that an important role in the undertaken physical activity and observance of diet was played by the belief that these activities have a significant impact on the course of the disease, which they assessed as very serious, with the possibility of complications. In the group of teenagers, beliefs about the effectiveness of glucose control had a greater predictive value for this type of action than belief that diabetes is a life-threatening obstacle. Among adult diabetics, the belief that glucose control has a positive effect on the course of diabetes was positively correlated with objective values of glucose levels (Starowicz, 2009).

The role of the sense of coherence in the treatment of diabetics

The divergence from a purely pathogenic view of the disease and an inclusion of pro-health orientation in its process was included in the concept of Aaron Antonovskye's salutogenesis (1995).

In this approach, the influence of health resources and potentials was emphasized, which in the face of stressors from the external and internal environment play a pro-health role (Dolinska-Zygmunt, 1996). The human does not have any pre-established procedures of

response to stressors in order to adapt to the new situation. These stressors do not have to lead to negative emotions every time, because they can play a mobilizing role, which in turn can help to create a strong sense of coherence.

There are three types of stressors. These include chronic stressors, stressors in the form of important life events, and stressors in the form of situations that do not force resources to be mobilized to counteract them, but are negative and increase stress tension.

In this context, an important component of Antonowsky's salutogenesis model are generalized immune resources, which include the properties of the individual, the surrounding and the environment that help to avoid stressors and cope better with tension without allowing this tension to transform into a process and state of stress (after Kirenko, Byra, 2003).

According to the definition proposed by Antonovsky (1995; 1997), the sense of coherence is: "A global human orientation that expresses the extent to which a person has a dominant, stable but dynamic sense of certainty that the stimuli flowing from the internal and external environment throughout life are structured, predictable and explainable. Resources are available to meet the demands of these stimuli. These requirements are the challenge worthwhile effort and commitment" (Antonovsky, 1995, p. 34.). The research on the sense of coherence allowed to separate the three components of this construct, i.e., the sense of comprehensibility, soundness and resourcefulness. Patients with type 1 or 2 diabetes are characterized by different levels of coherence. Higher sense, regardless of the type of diabetes, was associated with more often undertaken favorable pro-health behaviors (Ahola et al. 2012, after: Rynkiewicz-Andryśkiewicz, Andryśkiewicz, Curyło, Czarnecki, 2014).

It was observed in the studies that a lower level of sense of coherence in diabetic patients, with all its components, was strongly associated with more severe dimensions of depression. On the other hand, the high level of the sense of coherence was associated with lower depression. It turned out that diet increased coherence and decreased depression level (Kurowska, Strzesak, Głowacka, Felsman, Ponczek, 2009).

The study by Sanden-Eriksson (2000, after: Kurowska and Figiel, 2009) on people with type 2 diabetes is very important in this trend, as it indicated a direct link between the sense of coherence and the effects of treatment, which were affected by the acceptance of the

disease, health state control and patient involvement. It was observed that people with a higher sense of coherence had a better motivation to deal with the symptoms of the disease, and that patients with a low sense of coherence were much more likely to lead a lifestyle that affected their health, were less involved and did not strictly follow medical recommendations.

However, the study conducted by Kurowska and Rusińska (2011) show that diabetic patients were characterized by a moderate degree of coherence. The lowest results were obtained in one of the components-the level of soundness, which, according to the authors, may suggest that people with diabetes were only slightly focused on coping with the disease. Patients were not fully convinced that what they were doing made sense because the disease would accompany them to the end of their lives. In the discussion of the results, the authors point out that diabetic patients receive the least emotional support and not at the level they would expect.

Health behaviors

In psychological, medical and sociological literature there are different concepts and definitions of health and different understanding of health behaviors.

Among the various theoretical approaches, the concept of health is related, for example, to the goals set by an individual. If there is an inability to achieve a goal that is satisfactory for us, then the hierarchy is re-evaluated and changed. Therefore, health is understood as the ability to modify and change goals in accordance with the new conditions (after: Juczyński and Ogińska-Bulik, 2003).

Sęk (2000, p. 539) characterizes health behaviors as reactive, habitual and/or intentional forms of human activity, which are based on objective knowledge of health and subjective beliefs-in an important, interrelationship with health. Therefore, the division into habitual health behaviors, relatively constant patterns of presented behaviors, related to health activities and everyday health habits, and intentional ones, targeted at specific goals, is important (after: Juczyński and Ogińska-Bulik, 2003).

An important role of beliefs concerning positive influence on pro-health behaviors in the process of treatment of type 2 diabetics and undertaking various forms of such behaviors, especially dietary changes and increased physical activity was observed (White et al., 2007). The emergence of chronic disease triggers new defense

mechanisms and the development of individualized strategies for coping with the problem (Juczyński, 2000).

The style of coping with difficulties itself is an individually developed set of behaviors, which is activated in stressful, difficult situations, as a relatively constant, characteristic of each individual (Heszen and Sęk, 2008).

According to Heshen-Klemens (1979), health behaviors boil down to activity, i.e., activity oriented towards health objectives. Referring to this approach, anti-health and pro-health behaviors can be distinguished. According to (Gochman, 1982, after: Sęk, 2000) personalized attributes, individually matched to each person, i.e., expectations, motivation, beliefs, and a broader cognitive component, should be added to health behaviors. It is also worth noting that the emotional component, as well as habitual behaviors are included in the definition.

An example of a narrow approach to the discussed issue is the classification of Harris and Guten (1979), who on the basis of factor analysis selected five groups of health behaviors-which include:

– health practices, which may include, for example, weight control,

– safety practices, i.e., what is understood as some kind of prevention-for example, having basic medicines for sudden illnesses at home,

– preventive medical examinations,

– avoidance of environmental risks,

– avoidance of harmful substances-e.g. tobacco.

Health behaviors in the Juczynski classification (2001) are divided into the following categories:

– good eating habits

– preventive behaviors (including compliance with medical recommendations, search for health and disease information)

– daily health practices (this includes physical activity and an adequate amount of sleep)

– appropriate psychological attitude (positive attitude, and thus, e.g. avoiding too strong emotions).

A number of studies conducted in the early 1950s confirm that the development of civilization diseases is undoubtedly influenced by our health behaviors and, consequently, our lifestyle (Basińska, 2009). Lifestyle can be defined as making health decisions and the resulting behaviors. This is a very important factor, because

appropriate modification of the lifestyle allows to avoid many diseases, and in the event of a disease, to change its course (Sheridan and Radmacher, 1998; Basińska, 2009).

According to Sęk, in order to modify the lifestyle, it is very important to raise health awareness, enable health control and participation in the achievement of health objectives, as well as to develop and strengthen the health resources of the individual, including those in his or her immediate environment (after: Basińska, 2009).

Research methods

Due to the still little known role of gender in the process of adaptation to disease and health behaviors undertaking (Rodin and Salovey, 1997) and recently increasing physical activity of women (Wolańska et al., 1998, after: Lipowski, 2005), the study undertaken was aimed at searching for similarities and differences in the perception of diabetes, sense of coherence and health behaviors, their mutual relationships, in the group of diabetic women and men.

The Leventhal's Illness Perception Questionnaire was used to measure how respondents perceive their disease. The shortened version of this questionnaire consists of 8 questions concerning different beliefs about the disease to be answered on a scale from 0 to 10, with 0 being the lowest intensity of the belief and 10 the highest intensity of the belief. The next questions concern: 1. the impact of the disease on life, 2. beliefs about the duration of the disease, 3. possibilities of disease control, 4. beliefs about the effectiveness of treatment, 5. beliefs about the intensity of disease symptoms, 6 beliefs about commitment to treatment, 7. beliefs about the understanding of the disease, 8. beliefs about the impact of the disease on emotions (Moos-Morris et al., 2002).

Finally, there is an additional open-ended question in which respondents are asked to identify the causes that they consider most probable in the emergence of their disease. The consent of the authors to use the test was obtained by the co-author of the paper.

In order to measure the level of the sense of coherence (SOC), the Orientation to Life Questionnaire by Antonovsky (1995) was used. The questionnaire contains 29 statements to which the participants are expected to respond on a 7-degree scale, with 1 and 7 being the extreme intensity of the response. The questionnaire can calculate results on three scales: Sense of Understandability, Sense of Management, Sense of Soundness.

Also an overall result that is the sum of all test items can be calculated. The higher the score on a scale or overall score, the higher the level of coherence in a given range or overall score.

In order to measure health behaviors in the examined persons, the Health Behavior Inventory by Juczyński (2001) was used. The questionnaire contains 24 statements to which the respondents responded on a 5-point scale: 1-almost never, 2-rarely, 3-occasionally, 4-frequently, 5-almost always.

In the questionnaire, results can be calculated on four scales: 1. normal eating habits, 2. preventive behaviors, 3. health practices, 4. positive mental attitude. It is also possible to calculate the overall result by summing up all test items. The higher the score on a given scale or as a general result, the higher the intensity of the health behavior.

Sixty people with type 2 diabetes, including 30 women and 30 men, took part in the study. The participants were 46 to 72 years old (mean age about 62 years). The examined persons are patients of the Hospital Diabetes Clinic of the Central Clinical Hospital of the Ministry of Internal Affairs in Warsaw.

Results

There were no statistically significant differences between women and men with diabetes in the perception of their own disease. It can be thus concluded that women and men perceived their disease in a similar way. However, differences in the perception of the causes of the disease were revealed. Men significantly more often than women indicated obesity as the cause of their disease. In relation to the other causes of the disease, the results of women and men did not differ significantly.

It turned out that men and women suffering from diabetes did not differ in terms of their sense of coherence.

On the other hand, women differed from men in their health behavior. Statistically significant differences were found in general health behaviors, normal eating habits and prophylactic behaviors. In each case, a higher score was obtained by women compared to men. Therefore, women with diabetes were characterized by a higher level of health behaviors than men (Tab. 1).

Table 1

IZZ	Women		Men		student's t		
	M	SD	M	SD	t	df	p
General health behavior	86.70	10.94	79.70	11.98	2.36	58	**0.021**
Normal eating habits	3.54	0.73	2.98	0.71	2.98	58	**0.004**
Preventive behavior	3.83	0.61	3.31	0.66	3.22	58	**0.002**
Positive mental attitude	3.43	0.67	3.53	0.52	−0.62	58	0.537
Health practices	3.59	0.68	3.40	0.63	1.13	58	0.264

Explanations: M–mean, SD–standard deviation,
p–level of significance of the difference between the averages

Table 2 presents the correlation results for the variables sense of coherence and perception of the disease by women and men.

Table 2

Disease perception	SOC-29							
	Women				Men			
	WO	PZR	PZ	PS	WO	PZR	PZ	PS
Disease impact on life	–0.34	–0.32	–0.36	–0.27	**–0.71****	**–0.73****	**–0.68****	**–0.64****
Duration time	–0.15	–0.18	−0.22	−0.14	−0.15	−0.22	−0.25	−0.17
Control possibilities	**0.58****	**0.50****	**0.59****	**0.61****	0.22	0.17	0.09	**0.37***
Can treatment help	**0.65****	**0.57****	**0.66****	**0.65****	**0.53****	**0.54****	**0.54****	**0.49****
Intensity of disease symptoms	−0.35	−0.32	**−0.37**	**−0.40**	**−0.56****	**−0.57****	**−0.63****	**−0.54****
Commitment to treatment	**−0.43***	**−0.38***	**−0.46***	**−0.44***	**−0.54****	**−0.58****	**−0.61****	**−0.44***
Understanding of disease	0.28	0.28	0.23	0.36	0.22	0.13	0.16	0.27
Disease impact on emotions	**−0.70****	**−0.65****	**−0.68****	**−0.70****	**−0.72****	**−0.76****	**−0.71****	**−0.67****

Explanations: WO–Global sense of coherence,
PZR–sense of comprehensibility, PZ–sense of resourcefulness,
*PS–sense of soundness; * p<0.05; ** p<0.01*

According to the results presented in Table 2, it can be concluded that the sense of coherence was significantly related to the perception of the disease in both women and men with diabetes. It turned out that the sense of coherence positively correlated with such variables as: the possibility of control, confidence in the effectiveness of treatment, and negatively correlated with such variables as: the impact of the disease on life, intensity of symptoms, involvement in the treatment and the impact of the disease on emotions. The obtained results show that the greater the sense of coherence in the respondents, the greater the conviction of disease control and the conviction that treatment can help to overcome the disease. The greater the sense of coherence in the respondents, the less convinced they are about the impact of the disease on their own lives, the less intense the symptoms of the disease, the less worried they are about the disease, the less convinced they are about the lesser impact of the disease on their emotional state.

Table 3 presents correlation results for health behavior variables and disease perception by women and men.

Table 3

Disease perception	IZZ									
	Women					Men				
	WO	PNŻ	ZP	PNP	PZ	WO	PNŻ	ZP	PNP	PZ
Disease impact on life	−0.23	−0.05	−0.03	**−0.45***	0.11	**−0.36***	−0.30	**−0.40***	−0.33	−0.27
Duration time	−0.03	−0.03	0.27	−0.20	0.10	0.07	0.12	−0.04	0.13	0.14
Control possibilities	**0.58****	**0.40***	0.21	**0.79****	0.16	**0.54****	**0.38***	**0.48****	**0.41***	**0.39***
Can treatment help	**0.41***	0.26	0.13	**0.46****	0.08	**0.52****	0.29	**0.38***	**0.59****	0.27
Intensity of disease symptoms	−0.06	0.07	0.00	−0.14	0.17	−0.17	0.16	−0.28	−0.30	−0.02
Commitment to treatment	**−0.36***	−0.16	−0.11	**−0.53****	−0.01	−0.36	−0.22	−0.27	**−0.40***	−0.31
Understanding of disease	0.20	0.16	0.10	0.18	0.18	**0.54****	0.28	**0.57****	**0.38***	**0.45***
Disease impact on emotions	**−0.44***	−0.29	−0.12	**−0.54****	−0.04	−0.25	−0.20	−0.23	−0.32	−0.08

*Explanations; WO–general health behaviors, PNŻ–normal eating habits, ZP–preventive behaviors, PNP–positive mental attitude, PZ–health practices; * p<0.05; ** p<0.01*

Statistically significant correlations between health behaviors and disease perception in women and men were revealed. The correlations are both negative and positive. Health behaviors positively correlated with such variables as: ability to control, conviction whether treatment can help, understanding the disease and negatively correlated with such variables as: impact of the disease on life, commitment to treatment, disease impact on emotions. The strength of correlation is mostly moderate, but there are also single weak and strong correlations. These results suggest that the greater the feeling of control over the disease, the conviction that treatment can help to overcome the disease, the greater the understanding of the disease and the less the feeling of the disease impact on life, worry about the disease and the less the disease impact on one's own emotions, the more frequent were the individual health behaviors in the examined diabetic patients.

Discussion of the results

Kurowska and Figiel (2009) conducted a study on the sense of coherence and health behaviors in people with diabetes. They presented, inter alia, the average intensity of particular variables that were measured. The authors noted a low level of general sense of coherence in the patients (M=117.25). In the study presented in this paper, the results were slightly higher (women: M=123.47, men: M=135.17). However, it is difficult to assess whether the difference in results is statistically significant, and it is not possible to state unequivocally whether the group examined in this study had a slightly higher level of coherence than the persons examined by the authors. Perhaps the difference actually exists, and the reason for the discrepancy is the fact that the authors of the study only examined hospitalized people. However, these suggestions should be statistically verified. The authors did not provide average results by women and men, so it was not possible to check whether any of the groups in the authors' study had a higher level of sense of coherence.

Women with diabetes in our study differed from men also with respect to health behaviors. It turned out that women had higher intensity of behaviors concerning: normal eating habits, prophylactic behaviors as well as general health behaviors. In this context, it can be assumed that women were likely to attribute more importance to

normal eating habits and thus to healthy eating, as well as to behavior related to disease prevention and, in general, to more healthy behaviors than men. Men were characterized by a lower intensity of these behaviors, which may indicate that health may have been less important to them. However, in order to verify this, it would be necessary to carry out an appropriate study in this direction. The examined women with diabetes mellitus cared more about their health, which may be due to the fact that for women also appearance was more important than for men. Perhaps this is the reason why they were more concerned about nutrition and health in general, because health is conducive to a better appearance. However, this should be verified in further research.

The results of the study presented by Juczyński (2001) show results similar to those obtained in this study. The author noted that women have a higher level of health behavior than men. The results of this study are the same as those of Juczyński in terms of normal eating habits, prophylactic behaviors and general health behaviors. In the study by Kurowska and Figiel (2009), the level of global health behaviors of people with diabetes turned out to be only slightly lower (M=77.24) than the results obtained in this study (women: M=86.7, men: M=79.7). The authors did not provide results by gender, so it was not possible to check whether any of the groups-women or men-were characterized by a higher level of health behaviors.

Analyzes showed some differences in the perception of the disease by women and men. However, these differences appeared only in terms of the perceived causes of the disease. It turned out that men more often perceived obesity/weight as one of the causes of their disease than women. In order to objectify this belief, further research would need to check the BMI of the subjects, which would help to determine whether the men tested were actually more obese than the women tested.

According to the study conducted by Sak, Jarosz, Mosiewicz, Sagan, Wiechetek, Pawlikowski, Włoszczak-Szubzda, Olszewska (2011) it turned out that hospitalized women and men, due to various chronic diseases, differ in their perception of the disease. According to these results, the examined women perceive their disease as less threatening than men. Thus, the results of this study are the same as

those of the authors, but only to the extent that gender differences have occurred, but the type of differences is already different.

The analysis of the results of our study showed significant correlations between the sense of coherence and health behaviors in women and men. It turned out that the sense of coherence was positively related to health behaviors in both groups. Therefore, it can be concluded that the greater the sense of coherence in women and men with diabetes, the more often they took up behaviors aimed at improving or maintaining their health condition. However, the lower the level of their sense of coherence, the lower the frequency of health behaviors. It can be noted that these two variables in our study were related in the studied group of people with diabetes mellitus.

Health behaviors may be modified to some extent throughout life, but, as Antonovsky (1997) himself states, the sense of coherence (although it may also be subject to minor changes as a result of relatively less radical life experiences) is somewhat more difficult to modify. Therefore, it seems reasonable to state that this sense of coherence is conducive to more frequent health behaviors.

Certain correlations between health behaviors and the sense of coherence can be observed in the study by Kurowska and Figiel (2009). In their study, the correlation was only revealed between health practices and the sense of comprehensibility and the general level of coherence. These correlations were positive and weak. In our study we can see some similarity of results-correlations were also positive, but they were much more numerous and of much greater strength-most of them were moderate or strong.

Our study suggests that there is a stronger link between health behaviors and a sense of coherence than the study of the authors quoted above shows.

The results of our study show that the sense of coherence was related to the perception of the disease in both women and men with diabetes. The sense of coherence in women and men was positively connected with the possibility of control, belief that treatment can help, but negatively connected with the influence of the disease on life, intensity of symptoms of the disease, worrying about the disease and the influence of the disease on emotions. This may mean that the greater the sense of coherence in the examined persons with diabetes,

the greater the sense of control over the disease, faith in the effectiveness of treatment, and the less the disease had an impact on their lives and emotions, the symptoms of the disease were assessed as less intense and less worried about the disease. The combination of the sense of coherence and perception of the disease was significant as the correlations were numerous and moderate or strong. It can be concluded that the sense of coherence was conducive to positive perception of the disease. In addition, the perceived causes of the disease were associated with a sense of coherence, but only in men. Men who considered concomitant diseases as one of the causes of diabetes were characterized by a higher sense of coherence in terms of comprehensibility, resourcefulness and a general sense of coherence. The trend, although statistically insignificant, was also observed in the case of obesity/weight as one of the causes of disease in men. Men who considered obesity/weight as one of the causes of the disease had a lower sense of coherence in terms of soundness and general sense of coherence. Therefore, the sense of coherence could be important for the perception of the causes of the disease.

The relationship between the sense of coherence and the knowledge about the disease is evidenced in the study by Kurowska and Żytko (2015), who examined people with chronic kidney failure. The results presented by the authors show that people with this type of chronic disease show certain links between the sense of coherence and the knowledge about the disease. People with an average level of knowledge were characterized by a higher level of general sense of coherence and sense of comprehensibility, and people with a high level of knowledge were characterized by a higher level of resourcefulness and soundness. This can to some extent be related to the results of our study, because knowledge of the disease may contribute to a more positive perception of the disease. In addition, similar groups of people were studied in our study and in the above authors' study-both were groups of chronically ill people. Therefore, it can be assumed that in this context, the results of our study are reflected in some way-in our study the sense of coherence is positively connected with a better perception of the disease, and in the authors' study there are positive links between a higher sense of coherence and a better knowledge of the disease.

The analysis revealed significant relationships between health behaviors and disease perception in both women and men with diabetes mellitus. The more frequent were health behaviors in women and men, the greater was the feeling of control over the disease, faith in the success of treatment, understanding of one's own disease, and less influence of the disease on one's own life and emotions, and worrying about the disease. Health behaviors and perception of the disease are significantly related in diabetic patients-it can be assumed that positive perception of the disease is conducive to more frequent health behaviors or vice versa-more frequent health behaviors are conducive to more favorable perception of the disease. Moreover, health behaviors are also linked to the perception of the causes of the disease. As it turned out, women with diabetes, who mentioned obesity/weight as one of the causes of their diabetes, showed less prophylactic behavior. On the other hand, women who mentioned stress as one of the causes of their illness, showed a higher level of preventive behavior and general health behaviors. Also in men, the perceived causes of the disease were important for health behaviors. Men who mentioned stress as the cause of their diabetes were less likely to have positive mental attitudes and health practices. Thus, different mechanisms appear in this case in women and men-the perception of stress as a cause of disease is associated with more frequent health behaviors in women and with less frequent health behaviors in men. These differences are interesting and it would be worth looking for their cause and source. Perhaps it is a matter of attitude to stress issues, manifested by the fact that in the examined women the strategies of coping with stress are more task-oriented, and in men avoidable-hence in women who, in their opinion, experience disease due to stress, behaviors supporting health are undertaken more often, and in men who are characterized by the belief that the cause of their diabetes was stress, health behaviors were avoided. However, in further research it would be advisable to check stress management styles as well as perceived stress in order to better understand and explain the results of this study.

The results obtained in women and men suggest some differences between the revealed correlations. However, not all the differences were equally significant. In the case of correlations between health behaviors and the sense of coherence, they were very small-

differences in the correlation of preventive behaviors with the scales of the sense of coherence were mainly visible-in women there were fewer of them than in men. On the other hand, in terms of correlation between the sense of coherence and the perception of the disease, the differences were greater. In men there were correlations that were not found in women and vice versa-in women correlations were found that were not found in men. However, the general mechanisms were similar-the sense of coherence was positively related to the perception of the disease in both women and men. Moreover, the perception of the causes of the disease was significantly related to the sense of coherence in men and not in women. In the case of correlation between health behaviors and disease perception, the general mechanisms remained the same in both groups-more frequent health behaviors were associated with a more favorable perception of one's own disease. However, some correlations occurred only in women and some only in men, while others overlapped. On the other hand, health behaviors in women were related to the perception of, inter alia, obesity/weight and stress as causes of disease, and in men, the perception of stress as causes of disease was related to health behaviors, but different from those in women.

Gender differences in relationships disclosed may be linked to different factors. Gender may be a determining factor in the disclosure or non-disclosure of certain relationships, and other factors, such as personality, biological and social roles, may also be involved. It would be worth exploring this subject matter in order to broaden the knowledge and interpretative possibilities of this direction of research.

Conclusions

The results of this study confirm the existence of relationships between the perception of diabetes and the sense of coherence and health behavior in the group of women and men.

Although this study is not free from certain limitations, such as relatively small numbers, incidental selection of patients, the results may provide some guidance for the direction of education for psychologists assisting such patients.

The analysis carried out encourages reflection on what is worth focusing on in psychological support for people with diabetes mellitus.

It is particularly important for patients to strive for health-and therefore to shape appropriate health behaviors. This can be achieved by providing patients with information on possible strategies of action in the disease so as to eliminate its symptoms, such as education on the important therapeutic role of proper nutrition, physical activity, taking care of good health condition.

In a chronic disease such as diabetes, an individual approach to patients is important-to their perception of the disease and related behavior, as illustrated by results of the study.

In addition, an important element is the sense of coherence in patients. In the study we can see that it is strongly related to both health behavior and disease perception. Therefore, it is worthwhile to support a high level of sense of coherence in patients, because it shows a positive connection with other aspects of life of people with diabetes-perhaps thanks to this it is easier for patients to find a sense of life, despite the disease and a certain world order, which helps them to understand their situation. According to Ziarko (2014), it is important to develop a sense of influence on the course of the disease in people with diabetes, because it helps to implement medical recommendations.

When planning further studies, it would be worth to examine people in hospital and non-treatment conditions, which may allow for more diverse relationships between patient groups. We also believe that collecting more data, such as height and weight, may allow us to calculate a BMI that would be useful in explaining the results. Referring to the relatively unknown role of stress in diabetes, it would be important to understand the contribution of traumatic stress, as well as the preferred strategies to deal with stress and perceived stress, in patients with different types of diabetes, which would help not only to enrich the results and their interpretation, but also to develop more relevant, individual education and psychological support strategies for patients.

Summary

Diabetes as a growing health threat poses a challenge to an interdisciplinary approach to disease prevention and health promotion.

Relatively little known similarities and differences in the functioning of diabetic patients with respect to gender were the inspiration for such research.

The aim of the study was to search for similarities and differences between women and men with diabetes in the perception of this disease (cognitive representation), its links to the sense of coherence and health behaviors.

Theoretical introductory issues in the field of research concern clinical and psychosocial aspects of diabetes. Issues related to the cognitive representation of diseases in terms of Leventhal and contributors are the next content of the introduction. In the next part of the introduction to the problem of research, the sense of coherence in the model of salutogenesis and its role in diabetes mellitus is characterized. The authors also presented the problems of health behaviors. and their different definitions.

Psychological examination was performed on 30 women and 30 men with type 2 diabetes, treated in a hospital outpatient clinic in Warsaw.

The study used H. Leventhal's and co-authors Illness Perception Questionnaire, A. Antonovsky's Sense of Coherence Questionnaire (SOC) Z. Juczyński's Health Behavior Inventory.

The results showed numerous similarities and differences in the relationship between cognitive representation of the disease, sense of coherence and health behaviors in relation to gender. These results may be a preliminary report on the need for more individual patient education aimed at shaping health behaviors and supporting a sense of coherence as well as building a realistic but not pessimistic set of beliefs about the disease.

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Health as a result of own behaviour of women undergoing chronic stress

Introduction

The health of people depends on many factors: the development of the healthcare system, socio-economic, psychological, family. These interconnected factors can cause certain illnesses or improve health.

L. S. Safiullina (Safiullina, 2003) notes that the formation and preservation of health is influenced by personal factors, which determine the conscious (or unconscious) attitude of a person towards his or her health in addition to medical-biological and external factors. Among them, the priority is taken by self-preserving behaviour, which is largely determined by motivation and value orientation and depends on the self-esteem of own health .

Ye. S. Romanova (Romanova, 1996), S. D. Maksymenko (Maksymenko, 2006), N. F. Shevchenko (Shevchenko, 2007), and O. S. Maruta (Maruta, 2015) linked severe somatic diseases and mental health with the meaning of life and love.

In Ukraine, the number of various factors of psychotraumatization has increased recently in connection with an increase in the level of

social and stress destructive-destabilizing factors. The action of these factors, both classical and new, characteristic of modern Ukrainian realities, causes deterioration of physical and psychological health, destructive changes in family functioning, manifested in the form of defeat as of separate levels of family interaction, so in general, resulting in the formation of a family crisis and violation of family health.

Despite significant interest in resolving issues of provision of medical and psychological assistance to members of families in a state of family crisis, the problem of the impact of the family crisis on personal development, self-actualization of the personality of a woman, physical and psychological health, depending on certain individual psychological, behavioural, and psychosocial patterns, remains unresolved.

The central element of most of the family crises, conflict situations, and destructive responses of family members are the problems associated with the violation of family interaction (FI), that is, deformed and destructive social interaction that is congruent to the concept of "family crisis". Its manifestations occupy their niche in a series of socio-psychological and psychic phenomena. They exist along with such phenomena as mental illness, pathological conditions, neuroses, psychosomatic disorders, deviant behaviour, and sometimes they cause them. However, medical phenomena are considered from the viewpoint of the medical norm on the axis of "health – pre-existing disease – disease", the deviant behaviour expresses the socio-psychological status of the individual on the axis "socialization – disadaptation – isolation." The status of family interaction reflects the personal contacts of family members, as a result of which there is a mutual change in their personality, behaviour, activity, relations, therefore, we will consider it on the axis "norm – deformation – destruction – decay" and distinguish 4 states of FI and 4 levels of family crisis.

Normal family interaction involves the absence of a clearly identified family crisis (level 1). The second level of the family crisis indicates deformed family interaction. Some researchers define the concept of latent family disturbance (Eidemiller, Dobriakov, Nikolska, 2007). That is, it is a disturbance that does not have a significant negative impact on family life under normal conditions;

however, it can play a significant role in difficult life situations, defining the inability of the family to resist them.

Under normal circumstances, certain disturbances are permissible (insignificant complications of mutual understanding, communicativeness, responsibility, violations of sexual disharmony of spouses, moderate proneness to conflict, hostility, anxiety, interpersonal sensitivity, tension). However, in difficult situations, the degree of mutual understanding, favour, sympathy, love, and resistance to stress, which are characteristic of this family, is becoming insufficient. It is in this way that the formation of preconditions for the emergence of family-caused traumatic conditions takes place: family and personal dissatisfaction, states of anxiety, depression, feeling of guilt, hostility, proneness to conflict, mental and somatic disorders.

Medical and psychological correction and support can promote internal mobilization, exit from the situation of deformed FI, and reach the level of development and personal self-realization. Negative dynamics can lead to the FC of the third level – destructive FI and strengthening of psychotropic states: the emergence of psychopathological symptoms, increased psychosocial stress, worsening of family and personal dissatisfaction, states of anxiety, depression, emotional states, self-esteem, self-perception, hostility, proneness to conflict, level of responsibility, somatic disorders. Further deterioration of the situation, the destruction of family interaction lead to the 4th level of family crisis and completely destroyed FI.

Structure and methods of research

The purpose of the study – to determine the factors of the destructive behaviour of women from crisis families and the targets of medical and psychological correction.

We conducted research on the factors of psychoemotional, personal spheres and behavioural, psychophysiological, and partner patterns among women from crisis families. At the first stage, anamnesis was collected and, with the help of appropriate methods, we examined women who sought medical and psychological assistance in connection with the family crisis, deterioration of somatic and psychological health.

The objectives of this phase were: when analysing the mental, psychological, socio-psychological, and somatic conditions of women from crisis families, to study persons with constructive and destructive types of response to the destruction of marriage; on the basis of research of subgroups of women, to establish psychological factors that promote the development of somatic problems in the conditions of a family crisis in women with a constructive one and developmental factors of mental disadaptation (targets of psycho-correction) in persons with a destructive type of response.

Our research envisaged the study of conditionally allocated three blocks: the actual psycho-emotional state, personal (individual psychological features), and the block of the family crisis (behavioural, psychophysiological, and partner patterns) in middle-aged women.

The contents of the block of the actual psycho-emotional condition involved the study of psychopathological symptoms, psychosocial stress, and anxiety and depression. The content of the personal block envisaged the study of individual psychological characteristics of the women under study, self-actualization, subjective control, ways of getting out of difficult life situations, and lifestyle index (the intensity of psychological defences). The block of the family crisis includes indicators of marital satisfaction, possible styles of personality behaviour in conflict situations, indicators of expression of love, sympathy, understanding, emotional attraction, and authority and sexual attitudes.

Inclusion of specific tests in the methodical apparatus of the research was carried out on the basis of the following criteria: the conceptual substantiation of the method, high validity, compliance with the set goals and objectives.

Taking into account the specifics of our study, we have identified the most optimal type of psycho-diagnostic work – voluntary participation in the study. We were interested in obtaining absolutely objective, accurate data, so the maximum of anonymity was introduced. In the study, we focused on the accuracy of the average characteristics, the distribution of the levels of the studied indicators, their interrelations. The procedures for studying the entire contingent were unified. All women included in the study had equal opportunity

to participate in psycho-diagnostic activities and confirmed their consent to participate in the study.

The sample included women in a total of 224 people who asked for advice and assistance. By the time of anamnesis collection, the age of the respondents was in the range from 29 to 56 years.

Previously, with all the subjects, anamnesis was collected (the main subjective research method, which consists in obtaining information about the patient and his/her illness by questioning), which classically consisted of five consecutive sections:

– passport part (the full name, age, gender, marital status, address, contact phone number, date of appeal, education, occupation, place of employment, position were determined. These data have some diagnostic value, for example, the age may indicate the possibility or the impossibility of a certain illness);

– complaints (purpose: to list the complaints characteristic of this group of subjects: psychological, somatic, as well as those that reflect complications, background and concomitant illnesses);

– history of the problem (in the process of questioning, it was necessary to find out in detail from what time the investigators believe that they have certain problems, or from what time do they consider themselves ill, how problems began, the disease, with what the women under study associate their occurrence, whether they have already addressed for psychological or medical help, which treatment was carried out and its effectiveness);

– general anamnesis;

– anamnesis vitae.

The next step, after the initial conversation and collecting anamnesis, was to carry out a psychodiagnostic study. The collection of anamnestic data and psycho-diagnostic examination were carried out in favourable conditions along with establishing trusting relationships between the psychologist and the patient, which ensured the success of the examination.

The following techniques were used in the work: Derogatis, a questionnaire on the severity of the psychopathological symptoms (Simptom Check List'90'Revised SCL-90R); the scale of psychosocial stress by L. Reeder; Hospital Anxiety and Depression Scale (HADS) (A. S. Zigmond, R P. Snait); Self-Actualization Test (SAT) (Yu. Ye. Aloshyna, L. Ya. Hozman, M. V. Zahika,

M. V. Kroz); the level of subjective control (LSC); lifestyle index (diagnostics of frequency of use and expressiveness of defence mechanisms) (R. Plutchik, H. Kellerman, H. Conte); adaptation (L. I. Vasserman, O. F. Yeryshev, Ye. B. Klubova); the test "Way Out of Difficult Life Situations" by R. S. Nemov, marriage satisfaction test (V. V. Stolin, T. L. Romanova, H. P. Butenko), the test "Modes of Behaviour in Conflict Situations" by K. Thomas, sexual attitude questionnaire (H. Eysenck), UEA questionnaire (understanding, emotional attraction, authority) by A. N. Volkova, the scale of love and sympathy (Z. Rubin, version by L. Ya. Hozman and K. E. Aloshyna).

The obtained results are processed using mathematical and statistical methods. Correlation analysis was carried out with the definition of the Pearson correlation coefficient. Also, factor analysis was conducted. The specificity of this method is that when combining parameters into factors, each factor accumulates general patterns in all parameters, rejecting the features of each parameter separately.

Analysis of the indicators of actual psycho-emotional state

During the collection of anamnesis and psychodiagnostics, certain psychological and somatic problems were identified. Women under study complained of personal, emotional problems, problems in interpersonal family relationships: decreased self-esteem, fears, increased anxiety, depressive symptoms, panic attacks, self-aggressiveness, distrust towards a partner and others, and suicidal thoughts. At the same time, problems related to the cardiovascular, digestive, nervous, respiratory systems and problems associated with the locomotor system were detected.

The analysis of the obtained psychopathological symptoms data showed that among women from crisis families, low level prevails on all scales. However, according to the scales of interpersonal sensitivity (4%), depression and anxiety (1.3% each), hostility (2.7%), paranoid symptoms (0.9%), and the scale of additional questions (2.7%), high level of manifestations of these disorders was found. The average level is most pronounced on the scale of depression (46%) and hostility (40.6%). In 37% of the women

surveyed, the average level was determined on the scale of additional questions, in 34.8% – on the scale of somatization, and in 27.7% – on the scale of interpersonal sensitivity. Distribution of indicators by the average level on other scales is as follows: 18.8% – anxiety scale, 17.4% – obsessive-compulsive disorders, 9.8% – paranoid symptoms, 6.7% – psychoticism, 3.6% – phobic anxiety [7].

At this stage, we also studied levels of anxiety and depression on the hospital scale and the level of psychosocial stress. The analysis of the results of women from crisis families showed that less than 1/3 of the total number of all women in this group (24.5%) have clinically significant anxiety level and almost one-third – the clinical level of depression (30.3%) and high psychosocial stress level (33.9%).

The number of women from crisis families, which show the norm for indicators of anxiety, is 27.7%, according to the indicators of depression – 21.9%, according to the indicators of psychosocial stress – 19.2% of the total level of the surveyed. Accordingly, the subclinical level of anxiety and depression is characteristic for 47.8% (equally on both scales), the average level of psychosocial stress – for 46.9% of women surveyed. Thus, in the group of women from crisis families, indicators of subclinical anxiety and depression and the average level of psychosocial stress prevail (Falyova, Vysotskaya, 2016).

Thus, the psychological profile of women under survey from crisis families is as follows: the low level of all scales of psychopathological symptoms prevails; high enough is the share of women with average indicators of hostility, somatization, and interpersonal sensitivity; subclinical level of anxiety and depression and the average and high levels of psychosocial stress prevail.

Analysis of individual psychological peculiarities

The analysis of the results of studying the levels of self-actualization of women from crisis families showed that half of the respondents had an average level of competence in time (50.4%); more than one-quarter of the total number of women in this group had a low level (26.8%). Low scale assessments are typical for people with neurosis, with various forms of border psychic disorders. They were detected in 17% of women from crisis families.

Only 5.8% of women from crisis families have a high level, are able to live today, and feel the continuity of the past, the present, and the future, that is, see their life as holistic. It is such a time perception by the subject that shows the high level of self-actualization of the individual.

12.5% of women from crisis families have a high level according to the scale of support, indicating the relative independence of people in their actions, the desire to be guided in their lives by their own goals, beliefs, attitudes, and principles without manifestations of hostility to others and confrontation with group norms, that is, it is "inwardly directed" (A. Reisman) personality.

An average level was found in 42% of women from crisis families, low level – in 37% according to the support scale, and 8.5% of the respondents noted neuroses on this scale. This suggests a rather low degree of independence of the values and behaviour of these women from outside influence (internal-external support). It is the low score that indicates a high degree of dependence, conformity, dependency of women (outwardly directed personality), and the external locus of control.

The analysis of additional scales for women from crisis families showed that on all scales (value system, behavioural flexibility; sensitivity (reactive sensitivity); spontaneity; self-esteem; self-acceptance; acceptance of human nature; synergy; acceptance of their own aggression; sociability, cognitive needs; creativity), the average level prevails.

Almost one-third of the total number of women has a low level by the scale of value system (33.9%), that is, these women from crisis families do not share the values that are inherent in self-actualizing personality. A significant share of the low level was found on the scale of behavioural flexibility (42.9%), which indicates the low degree of flexibility of women in implementing their values in behaviour, interaction with others, the low ability to respond quickly and adequately to a changing situation.

21% of women from crisis families have found a low level according to the scale of self-esteem, which diagnoses the low ability of the subjects to appreciate their merits, positive character traits, and to self-respect. The low level is also noted in 36.2% of women on the scale of self-acceptance, which accounts for a low degree of

acceptance of a person as such, regardless of the assessment of their merits and demerits, and possibly, contrary to the latter.

That is, we can talk about the low level of the whole block of self-perception among women from crisis families. 29% of women from crisis families have shown a low level of acceptance of their own aggression, this suggests that such women are not able to accept their irritation, anger, aggression as a natural manifestation of human nature.

In women from crisis families, the high level was found on the following scales: 15.2% – value system, 8.4% – behavioural flexibility, 0.9 – sensitivity, 5.8% – spontaneity, 5.8% – self-esteem, 12% – self-acceptance, 3.1% – acceptance of human nature, 8.9 – synergy, 4.5% – sociability, 1.8 – cognitive needs, and 0.4% – creativity. The high level of acceptance of self-aggression in this group of women was not detected at all.

The task of this stage of work was also to determine the ways out of difficult life situations, the level of subjective control, and frequency of use and expression of the defence mechanisms of the women under survey.

An analysis of the findings of the identification of the dominant ways of solving life problems has shown that almost half of the total number of women from crisis families (45.1%) has the average level, that is, those respondents do not always withstand strokes of misfortune with dignity. They can lose their temper, upset when problems occur, and upset others.

Almost a third of women (32.1%) have a low level, suggesting that such individuals can not normally experience troubles and usually react psychologically inadequately to them. 22.8% of women from crisis families easily reconcile with troubles, correctly assess what is happening, and maintain a mental balance.

At this stage, we investigated the level of subjective control. Since most people tend to more or less variety in behavioural patterns depending on specific situations, one can say that the characteristics of the level of subjective control of one person may vary, depending on how complex or simple, pleasant or unpleasant this person imagines a certain situation. That is why we used a multi-scale questionnaire and found the level of locus of control according to seven scales. For women from crisis families, according to the

scale of general internality, average level prevails (54%), that is, such individuals often take responsibility for them but often also try to shift it to other circumstances, people. Almost one-third of the total number of women surveyed (31.7%) showed a low level, and 14.3% – a high level of subjective control and can take responsibility for what happens to them.

The prevalence of middle-level locus of control of women from crisis families is marked by internality scales in the field of achievements (42%), failures (58.5), interpersonal (67.4%) and productive (40.2%) relations, and on the scale of internality in relation to health and disease (73.7%).

According to the scale of internality, low level prevails in family relations. The number of such women is 46% of the total number of women surveyed. The average level on this scale was found in 43.3% of women. Almost a third of women from crisis families have a low level of general internality (31.7%), more than one-third of the total number of surveyed have a low level of internality in the field of achievements (37.5%), failures (35.3%), industrial relations (35.7%).

The task of this stage of work was also to reveal the peculiarities of defence mechanisms of women from crisis families. We determined the tension of each psychological defence. Analysis of the stress in a group of women from crisis families showed the presence of problems associated with the psychological protection of substitution (57.5%), which involves the discharge of suppressed emotions (anger, malice) in objects that are not dangerous to the individual.

The tension in the psychological defence of denial of women from crisis families reaches 49.5%, that is, such women deny some aspects of external reality, which are obvious to others but are painful for the recognition by this person. One can also note a certain level of rationalization stress (45.2%), which relates to constructive defences, regression (44.3%), that is, women return to behavioural patterns associated with earlier and more primitive phases of psychosexual development and compensation (43%), this protection also applies to the constructive form and is an attempt to find a suitable replacement for a real or imaginary disadvantage, a feeling

of inferiority by means of fantasizing or appropriating the desirable feelings, qualities, and merits of another person.

Thus, certain problems related to the indicators of self-actualization (competence in time, self-support, value system, behavioural flexibility, self-esteem, self-perception), personal qualities, and stress of psychological defences of women under survey in crisis states.

Analysis of indicators of behavioural, psychophysiological, and partner patterns

The influence of complex life situations on the family touches on different spheres of its life, leads to violations of its functions. These violations, in turn, affect the well-being of family members, cause the states of internal stress, discomfort, lead to somatic diseases, neuropsychiatric, behavioural disorders, and inhibit the development of personality. Therefore, it is important and relevant to study the psychological features of the family crisis. The objective of this research stage was to provide a general description of the manifestations of the family crisis in women.

The analysis of the obtained results revealed that among the women from crisis families, there are no persons with significant and complete satisfaction with marriage, that is, the total absence of functional and absolutely functional families from the viewpoint of women.

43.3% of women from crisis families are more likely to be satisfied with their marriage, that is, they consider their families to be rather functional. 13.8% of women can be attributed to the so-called transitional families, that is, they marked a partial satisfaction with the marriage. Rather dissatisfied with their marriage are 8.9%, much dissatisfied – 13%, and 21% of the total number of women from crisis families are completely dissatisfied with their marriage.

The analysis of the results of the study of behavioural modes of women from crisis families showed that by the competition mode, the low (46%) and average (43.7%) levels prevail with predominantly low.

The average level prevails according to all other behavioural modes: cooperation (84.4%), compromise (82.6%), avoidance

(69.2%), and adaptation (66.5%). Almost a third of the surveyed have a low level by behavioural modes: avoidance (23.7%) and adaptation (32.6%). 10.3% of women from crisis families have a high level of competition, while by other behavioural modes, high indicators are on the scale from 0.9% to 7.6%.

For women from crisis families, more than half of the surveyed have a high level of love (55.7%) and sympathy (50.5%). One-third of women in this sample has an average love level (35%) and 42.3% – an average level of sympathy. In this sample of the women, a low level of love was marked in 9.3% and a low level of sympathy – in 7.2% in the overall number of women from crisis families.

The overall emotional relationships in dyad from the viewpoint of women are at high and average levels (47.7% each). 5.5% of women noted it as low (Falyova, Markova, 2016).

The analysis of the results of studying indicators of understanding, emotional attraction, and authority of women from crisis families showed that the high level of understanding (54.9%), average level (52.7%) of emotional attraction, and average level (75.9%) of authority prevail. According to the indicators of understanding, 44.2% of women have an average level and 0.9% – low.

According to the indicators of emotional attraction, 37.5% of the women surveyed show a high level and 9.8% – low. According to the indicators of authority, it is found that more than twenty percent of women from crisis families have a low level (20.5%) and 3.6% – a high level.

An analysis of the results of the study of sexual attitudes of women from crisis families showed that the high level prevails only on the scale of sexual satisfaction and is 56.3% of the total number of respondents of this group.

The prevailing low level was marked by sexual shyness (55.8%), chastity (66.1%), and aggressive sex (54.5%). On all other scales, women with average levels got the highest percentage. According to the scales of sexual neuroticism and masculinity-femininity, there are no respondents with a high level of expressiveness and on the permissiveness scale – persons with a low level (Falyova, Markova, 2016).

The interrelation of self-actualization and indicators of blocks of actual psycho-emotional state, personal and family crises

To determine the interrelation, we have analysed all the studied psychological indicators. We considered the main linkages between the indicators of the actual psycho-emotional state, the personal and the family crises (behavioural, psychophysiological, and partner patterns) and self-actualization.

Significant correlations are found on all scales of groups of women from crisis families. The greatest number of correlations in the group of women from crisis families is noted by indicators of interpersonal sensitivity, anxiety (psychopathological symptoms). Their number is 50%. 42.86% of relations were detected on the scale of depression and phobia. The third place in the number of connections is occupied by the scales of the level of mental distress and anxiety (psychological scale) – 35.71% each. Also, 28.57% of connections of self-actualization were detected on the scale of psychosocial stress. Scales of somatization, obsessive-compulsive disorders, paranoia, psychoticism, depression (psychological scale) have the same number of correlations, which is 21.43%. The smallest number of links was shown by the scales of additional questions (7.14%) and hostility (14.28%).

Analysis of the results of the correlation analysis showed that the ability of women from crisis families to live for the today, which suggests a high level of self-actualization of the individual, reduces the level of psychopathological symptoms on such scales, as: somatization (-0,164, $p<0,05$), depression (-0,147, $p<0,05$), anxiety (-0,196, $p<0,01$), phobic anxiety (-0,195, $p<0,01$), paranoid symptoms (-0,140, $p<0,05$), psychoticism (-0,170, $p<0,05$), and general level of mental distress (-0,186, $p<0,01$). The relative independence of women from crisis families in their actions, and also disinclination to external influences (support scale) inversely correlate with the scales of psychopathological symptoms: interpersonal sensitivity (-0,161, $p<0,05$) and depression (-0,189, $p<0,01$) and with psychological scales of anxiety (-0,243, $p<0,01$) and depression (-0,139, $p<0,05$).

Values that are inherent in self-actualizing person are mutually conditioned with the level of psychopathological symptoms on the

scales of anxiety (-0,167, p<0,05), phobic anxiety (-0,167, p<0,05), and the level of mental distress (-0,146, p<0,05). The high level of behavioural flexibility in the realization of their values, interaction with others, the ability to respond quickly and adequately to changing situations reduces the risk of development of psychopathological symptoms on the scales of obsessive-compulsive disorders (-0,137, p<0,05), interpersonal sensitivity (-0,133, p<0,05), anxiety (-0,139, p<0,05), phobic anxiety (-0,150, p<0,05), psychoticism (-0,147, p<0,05), and psychological anxiety scale (-0,133, p<0,05).

Understanding by women from crisis families of their needs, feelings (the scale of sensitivity to oneself) is revealed through interdependence with interpersonal sensitivity (-0,174, p<0,01) and depression (-0,157, p<0,05). Such women are not characterized by self-denial, discomfort in interpersonal interaction, lack of interest in life, lack of sense of personal inadequacy and inferiority.

The inverse relation of the entire block of self-perception with the indicators of psychological scales of anxiety (self-esteem – -0,337, p<0,01, self-acceptance – -0,428, p<0,01) and depression (self-esteem – -0,224, p<0,01, self-acceptance – -0,296, p<0,01) is revealed. It can be concluded that the more women from crisis families value their merits and respect themselves for them, the lower are the indicators of psychopathological symptoms: interpersonal sensitivity (-0,142, p<0,05), depression (-0,190, p<0,01), anxiety (-0,133, p<0,05), phobic anxiety (-0,145, p<0,05). At the same time, if women accept themselves as they are, without assessing their merits and demerits, the lower are psychopathological indicators of depression (-0,277, p<0,01) and additional questions (-0,196, p<0,01), although they do not fall under the definition of symptomatic disorders but may point to some of them.

The analysis of the results showed the existence of significant correlations of the block of the concept of a person with the scales of the actual emotional state of women from crisis families. The woman's perception of human nature as a whole as positive contributes to the reduction of manifestations of such psychopathological symptoms as somatization (-0,187, p<0,01), obsessive-compulsive disorders (-0,338, p<0,01), interpersonal sensitivity (-0,343, p<0,01), anxiety (-0,324, p<0,01), hostility (-

0,153, p<0,05), phobic anxiety (-0,266, p<0,01), paranoid symptoms (-0,212, p<0,01), psychoticism (-0,162, p<0,05). The ability of women to holistic perception of the world and people, understanding the connection of opposites (synergy scale) helps to deprive manifestations of somatization (-0,166, p<0,05), obsessive-compulsive disorders (-0,241, p<0,01), interpersonal sensitivity (-0,310, p<0,01), depression (-0,167, p<0,05), anxiety (-0,181, p<0,01), phobic anxiety (-0,206, p<0,01), paranoid symptoms (-0,177, p<0,01), and the general level of mental distress (-0,223, p<0,01).

In the least way, the scales of the emotional state of women from crisis families are characterized by a connection with blocks of interpersonal sensitivity and attitude to cognition. The high level of acceptance of aggression involves a reduction in the psychological scale of anxiety (-0,154, p<0,05). Significant correlations of the scales of sociability and cognitive needs with the scales of the actual emotional state were not revealed. Self-actualization on the scale of creativity is revealed due to the connection with the indicators of interpersonal sensitivity (-0,226, p<0,01), anxiety (-0,144, p<0,05), and the general level of mental distress (-0,137, p<0,05), that is, the more expressed the creative orientation of the individual, the less characteristic of it will be disturbing states, discomfort in interpersonal interaction, and lack of interest in life.

At this stage of the study, we conducted a quantitative analysis of the total volume of interconnections of self-actualization with the components of the family crisis block (marital satisfaction, behavioural modes in conflict situations, sexual attitudes, love and sympathy, understanding, emotional attraction, and authority).

In the group of women from crisis families, the scale of physical sex prevails at the level of 57.14% from the total number of correlations for this block. In the second place, according to the number of interconnections, there are scales of sexual shyness and chastity, the share of which is the same – 42.86%.

In the third place, by the number of links, there is a scale of masculinity-femininity – 35.71%. In the fourth place, the authority and pornography scales with 28.57% can be placed. Thus, the greatest interconnections among women from crisis families are

marked by scales of physical sex, sexual shyness and chastity, masculinity-femininity, authority, and pornography.

Components of family interaction

An important link of further research is to define components of the family interaction (FI) system. Based on the analysis of the data obtained through correlation and factor analysis, we determine 5 components of FI: psychoemotional, individual-psychological, behavioural, psychophysiological, and partner.

1. The psychoemotional component includes indicators:

– psychopathological symptoms (obsessive-compulsive disorder, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid symptoms, psychoticism, additional questions);

– psychosocial stress;

– hospital scale of anxiety and depression;

– emotional states (emotional stability, carelessness, emotional sensitivity, anxiety, development of self-control, tension).

2. The individual-psychological component includes the following:

– individual-psychological features of the person (general level of intelligence, development of imagination, dreaminess, diplomacy, innovativeness, courage, moral normality, self-discipline);

– self-actualization (orientation or competence in time, self-support, value system, behavioural flexibility, reactive sensitivity, spontaneity, self-esteem, self-acceptance, acceptance of human nature, synergy, acceptance of own aggression, sociability, cognitive needs, creativity;

– the level of subjective control (general internality, internality in the field of achievements, failures, in family, production, interpersonal relations, internality in relation to health and illness).

3. The behavioural component includes indicators:

– behavioural modes in conflict situations or 5 ways to regulate conflicts (rivalry (competition), adaptation, compromise, avoidance, cooperation);

– ways to get out of difficult life situations;

– communicative qualities (openness, closeness (sociability), courage, degree of domination-subordination (dominance), attitude

towards people (suspicion), diplomacy, dependence on the group, independence).

4. The psychophysiological component includes the following:

– sexual attitudes (permissiveness, realization, sexual neuroticism, impersonal sex, pornography, sexual shyness, chastity, sexual aversion, sexual arousal, physical sex, aggressive sex, masculinity-femininity);

– somatization (somatic equivalents of anxiety).

5. The partner component includes indicators:

– satisfaction with the marriage;

– love and sympathy;

– understanding, emotional attraction, authority.

Definition of the concept involves the allocation of essential features of the phenomenon. It is advisable to identify those specific features of FI that will allow us to distinguish it from other phenomena, as well as, if necessary, to state the presence and levels of its violation, the dynamics in a particular family.

1. FI violations cause internal family relations and individual psychological characteristics of family members.

2. These are violations of the most important rules for this family.

3. The family's resilience to life and personality difficulties, which leads to a violation of the FI, can be explained by a mechanism that provides for success – coping strategies for problem-solving (family resources, subjective interpretation of the stressor) (Hill, 1946).

4. The peculiarity of the violated FI is that it causes real damage, as the personality of the wife and the husband, and the family as a whole and the people around them. This may be a destabilization of the existing family order, personal injury, physical violence, and deterioration of mental and somatic health. In extreme cases, FI violation poses a threat to the family existence and the lives of its members (suicidal behaviour). The psychological marker of harm is the suffering experienced by a person, or what he/she brings to the family.

5. Violations of FI, if they are not diagnosed, reflexed and corrected, can be characterized as persistently repeated or chronic.

Analysis of the results of our study made it possible to identify diagnostic markers that allow establishing the aetiology of family,

personality, somatic, emotional, and self-actualization disorders, characterizing the dynamics, forecasting further destructions or positive development, evaluating the effectiveness of medical and psychological correction.

At the same time, these markers are targets for medical and psychological correction: self-actualization (support, value system, self-esteem, spontaneity, acceptance of aggression, sociability, self-acceptance, behavioural flexibility, sensitivity, creativity, competence in time), internality (general, in the field of achievements, family and industrial relations), sexual liberation (sexual libido, impersonal sex, permissiveness, pornography, masculinity-femininity), and sexual attitudes (sexual arousal, physical sex, sexual aversion, sexual neuroticism), family relationships (understanding, emotional attraction, authority, marital satisfaction), psychological defences, behaviour in conflict situations.

Conclusion

Thus, the analysis of the relationships of psycho-emotional states, the factors of the family crisis, the personal qualities of women from crisis families, and the semantic relationships of factors allowed determining the factors and criteria for forecasting the development of the family crisis (personal growth and destructive response of the individual), the level of somatic health and the growth of self-realization of a woman's personality in a family crisis.

1. The states of family interaction, levels of family crises, and the relationship between them are established; certain components, specific features of the family interaction system, and diagnostic markers (targets of medical and psychological correction and support) are determined.

2. The presence of significant correlations of self-actualization and the scales of blocks of the family crisis in the surveyed women is determined. The presence of significant correlations of self-actualization and scales of the personal block, self-actualization and scales of the actual psycho-emotional state is revealed. Self-actualization of women is characterized by interdependence with psychopathological symptoms.

3. The obtained results of the research of women from crisis families and the revealed targets of psycho-correction of mental disadaptation

and violations of the self-actualization of a woman's personality in a family crisis indicate the necessity of carrying out psycho-preventive measures, correction of the psycho-emotional state, and increasing the level of self-actualization as risk factors for psychosomatic illness and preparing a program of psycho-correction aimed at primary treatment of somatic disorders, negative psycho-emotional states, further work with the personal qualities of the subjects, provoking a family crisis, emotional and cognitive disorders; carrying out a control cut after psycho-correction work, further processing of the research results, determining the effectiveness of the corrective program for its introduction into the practice of medical institutions and medical psychologists.

Summary

In Ukraine, the number of various factors of psychotraumatization has increased recently in connection with an increase in the level of social and stress destructive-destabilizing factors. The action of these factors causes deterioration of physical and psychological health, destructive changes in family functioning.

We conducted research on the factors of psychoemotional, personal spheres and behavioural, psychophysiological, and partner patterns among women from crisis families, who are in chronic stress. The sample included women in a total of 224 persons who asked for advice and assistance. By the time of anamnesis collection, the age of the respondents was in the range from 29 to 56 years.

Analysis of the results of our study made it possible to identify diagnostic markers that allow establishing the aetiology of family, personality, somatic, emotional, and self-actualization disorders, characterizing the dynamics, forecasting further destructions or positive development, evaluating the effectiveness of medical and psychological correction.

The obtained results indicate the necessity of carrying out psycho-preventive measures, correction of the psycho-emotional state, increasing the level of self-actualization as risk factors for psychosomatic illness, and preparing a program of psycho-correction for its introduction into the practice of medical institutions and medical psychologists.

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Sanogenic thinking of future specialists of the emergency medical aid service as a factor of counteraction to emotional stress and as a condition of preservation of their professional health

Introduction

One of the main tasks of the present time is the formation of a healthy person, and the problem of psychic health support is becoming more and more relevant. The acceleration of the pace of life, the rapid development of information technologies intensify the nervous tension, which leads to the emergence of depression, stress disorders, neuropsychic pathology, the morbidity rate increases rapidly. The quality of life of a young person, his/her relationship with the environment, ways of responding to the circumstances of everyday life, etc., is determined by the type of thinking that can affect the state of psychic and somatic health of a person.

Sanogenic thinking allows you to get rid of the state of stress, the negative effects of emotional stress, leads to a decrease in suffering

from negative emotions. The main function of sanogenic thinking is the constructive regulation of emotional states of a person. The study of the problem of sanogenic thinking, in our opinion, will allow us to go deeper into the solution of urgent problems in the psychic field of future specialists of the medical profile. As you know, the formation and preservation of the psychic health of future specialists of the emergency medical aid service is mainly connected with the peculiarities of the emotional and volitional sphere of a person, in particular with such his/her features as perseverance, determination, initiativity, endurance, etc. Herewith, the prevention of professional deformations, which are most often associated with changes in this field, should be considered not as a treatment, but as the management of the mechanisms that determine the development of the employee's personality, contribute to the formation of positive self-perception, readiness for change, the adoption of a high degree of responsibility for the results of performed actions which is a sign of a sanogenic type of thinking of a person.

In domestic psychology, the problem of sanogenic thinking, developed by Yu. Orlov (Orlov, 2006), was systematized the most. He believes that the main role of this type of thinking is to create conditions for reaching the goals of self-improvement, harmony of traits, consent with himself/herself and environment, getting rid of bad habits, management of his/her emotions, control of their needs (Ananiev, 2006). This thinking reduces internal conflict, tension, prevents diseases, strengthens health. Unlike pathogenic thinking, sanogenic one contributes to the improvement of psyche, elimination of obsolete resentments, complexes, eliminates difficulties in communicating, gives success in activity and life.

In the psychological literature, the term «sanogenic potential of an individual» is used. It is understood as the psycho-energetic potential of an individual, which was formed as a derivative of the wealth of his/her inner world, the breadth of social and spiritual spaces, the acquisition of experience, the achievements of his/her own well-being, and directly proportionally affects his/her psychic health, as well as the means that allow to support it (Kaloshin, 2008).

The purpose of the article is to characterize the peculiarities of sanogenic thinking of future specialists of the medical profile, to describe the connections of sanogenic thinking with reflexivity, self-

perception, persistence, self-control, etc., for the preservation of their professional health.

The basic concepts of emotional stress in domestic and foreign psychology and the role of positive thinking in counteraction to emotional stress.

It separates a person from natural conditions: artificial lighting, steam heating, synthetic clothing, multistory houses and elevators, synthetic food. A person works when according to sunny and monthly rhythms it is worthwhile to rest or sleep. A person moves a little, although he/she is naturally programmed to extract bread, making significant efforts (Alexander, 2008). At the same time, psychic overload has become a daily reality and stress is superimposed on stress not giving time to recovery. According to the World Health Organization, the number of diseases due to the negative effects of stress over the past 60 years has increased by 25 times.

The effects of stress are so large and broad-scale that even the economy started to suffer from them. For example, the American specialists have estimated that the stress in general costs the US economy 150 billion dollars a year. And, when billions are put at stake, companies and firms are starting to take appropriate measures. The dozens of them introduced the courses to fight stress for their employees, providing workers with a variety of help (Ananiev, 2006). And, although the psyche was responsible for the fact that the body became ill, nobody thought that it was possible to force the body to recover again by influencing it. Almost everyone has experienced stress. But, hardly anybody has thought about what stress is. Stress is a part of everyday life, and although it is caused by various factors (stressors), they trigger the same biological response. However, stress can be counteracted. Stress can be weakened or eliminated altogether from human life by changing the attitude towards reality by managing our thoughts. The human mind has an extraordinary power that needs to be directed to weaken the stress, not to amplify it. A person feels stress in case if he/she has convinced himself/herself of this. She is helpless only when she feels helpless. She falls into a situation with no way out when she has really decided that there was no way out. By changing thoughts,

expectations, guidelines, a person learns to live without stress (as stated in Oliynyk, 2004).

Changing himself/herself, a person must necessarily experience the feeling that people and events that previously caused her to stress have changed (Kovalenko, 2003). It would be wrong to assume that there is a certain stressful environment around a person, which only waits for ruining him/her. The stress state is largely determined by how a person responds and what he/she says, and not just by external factors causing stress. The theory of stress suggested by G. Selye is the most common one. In his work "Theory of Stress", the author proves that stress is a nonspecific response of a body to any demand. The problems causing stress are different, but the body responds stereotypically, with the same biochemical changes, the purpose of which is to cope with irritants. Each new demand is specific and peculiar. However, despite what changes they cause in the body, all the stressors have something in common. They put forward a demand of readjustments. This requirement is nonspecific, stipulates adaptation to any difficult situation. In other words, in addition to a specific reaction to the stressor, there appears a nonspecific need for an adaptive function that will restore the body's balance (Korolchuk, 2002). The word «stress», which had recently enjoyed particular popularity, came from the English language, and its translation means "onslaught, pressure, stress". As stated in (Roman, 2004): stress is a state of psychic tension that a person starts to experience in the process of the activities complicated by certain circumstances (for example, during a space flight, in the event of an emergency, fire, during the preparation for a complex examination, etc.). Stress is an adaptative syndrome that can have a different effect on the state of the body. In some cases, the mobilization of internal resources of the body occurs and a person carries out such activities, which he/she cannot carry out under normal circumstances, in others – a complete disorganization of the body until the appearance of stupor occurs. Therefore, it is important to study the adaptation of a person to difficult circumstances with the purpose to predict his/her behavior in similar situations.

Sometimes the notion of stress is interpreted wider: it includes a strong negative impact on the body and unfavorable for the body physiological or psychological reaction to the action of the stressor, a

strong reaction of the body as favorable and unfavorable to it» (Greenberg, 2002). However, stress is an individual reaction that may differ from the reaction of any other person. It is based on a person's attitude to this situation, as well as his/her thoughts and feelings. By changing his/her thoughts and reaction, a person gets an opportunity to completely change his/her feelings and reduce the stress level. Consequently, the reaction to a situation depends on the person, on his/ her thoughts that can be managed. Certain factors cause a person's stress reaction under which he/she consciously or subconsciously tries to adapt to a new situation. Then the alignment or adaptation comes. A person either finds a balance in the current situation and stress does not produce any consequences, or does not adapt to it. As a result, different psychic or physical abnormalities may occur. Frequent stresses can lead to the depletion of the adaptative protective system of the body, which in its turn can cause diseases. In general, the human body reacts to stress differently (Timchenko, 2000).

Passivity. It is elicited in a person whose adaptation reserve is insufficient and his/her body cannot withstand stress effectively. The state of helplessness, hopelessness, depression emerges.

Active protection against stress. A person changes a scope of activity and finds something more useful in order to achieve a balance, which contributes to the improvement of health.

Active relaxation (relaxation) enhances the natural adaptation of the human body – both psychic and physical. This reaction is the most effective one. In 1935, the American physiologist W. Cannon first identified the mechanism of human response to stress – this is a reaction of struggle or escape (Nikiforov, Ananyev, Gurevich, 2000).

The information about anxiety enters the brain through the sensory organs. During fractions of a second, the information is transmitted to the thyroid gland through the nerve endings. Receiving an anxiety signal, this body immediately throws a huge number of «battle hormones» into the blood, that is adrenaline that spreads all over the body. The pumping-over of blood happens: it moves to where it is most needed for the appropriate actions. The brain continues to send signals – psychic tension increases, attention is intensified, preparation for action is carried out. All this happens with lightning speed – the tension, and hence the stress, grow at an

amazing speed. Adrenalin increases the frequency of pulse and breathing, blood pressure rises. And, if a person does not realize the created stock of energy (does not run away, does not attack), it leads to the emergence of psychosomatic diseases (cardiovascular, liver, nervous system, decrease in immunity, etc.). Every person has his/her own «threshold of sensitivity to stress» (which can get changed, which can be controlled) – that individual level of tension to which the effectiveness of the activity increases.

But, if the impact on the stressor lasts for a long time, the threshold of sensitivity increases and exceeds, the person's success of work and quality of life are significantly reduced. It is impossible to live and work without stress at all, and it is harmful: without the need to fight and overcome difficulties, a person ages, becomes weak and helpless. However, having crossed the individual «threshold» by force and duration of influence, stress becomes disastrous, a person experiences tiredness from stress, exhaustion, he/she may even get sick. It has been established that 10 -15 years of work in extreme conditions can wear out the human body as if it had survived the worst heart attack. And, conversely, short-term severe stress can mobilize and activate a person, increase his/her vitality (Berezjuk, 2011).

In order to prevent stress in a certain way, everyone needs to know its signs. As you know, the physical and psychological reactions to stress are diverse. Already on its own, the emergence of a stressful situation leads to negative consequences: pain in the stomach, severe headaches, inability to breathe deeply, because something interferes. These serious timely signals which the human body sends should be understood unambiguously – it's stress. While they only warn a person (it is still far away to the danger signal), however, having received them, one should think about the causes of certain disorders in the body. In addition to physical, in this case, biological stress signals, there are also signals of the emotional sphere about the need for behavior change.

The stress of one person might be disclosed in impatience (at least when he/she is waiting for a public transport at a stop, or in a classroom – the student's response). Another one seems to be constantly in a hurry: he/she speaks quickly or walks too fast. The third one suffers from the deterioration of memory. The fourth one

has his/her thoughts continuously running from one thing to another one and he/she cannot concentrate (Korolchuk, 2002). The increased nervousness, wild mood swings, rapid fatigability, a state of devastation are also the manifestation of stress. Some stresses are disclosed in sudden anger. And, someone becomes too distrustful: after having read or listened to the symptoms of various diseases, he/she tries to find them in himself/herself. By the expression of the face of most people, but not all, it is evident that they are in a state of stress. It happens that the tension is also felt in other muscles of the body. The shoulders strain and slump, a person bends forward, instinctively trying to protect himself/herself. He/she can cross legs or arms, trying to defend himself/herself (Kraynova, 2010). These and other psychic and biological signals should make people think about their health, lifestyle. The analysis of the reaction of the organism to such signals will help to understand the emergence of stressful situations and make the first step towards their overcoming. It is worth to consider the various states that can signal the presence of internal tension in the body. This state, as a rule, burdens, and a person begins to determine what the reason is. The conscious assessment of a state can transfer these signals from the sphere of senses into the sphere of mind. This will enable you to achieve psychic balance and thereby eliminate unwanted stressful state. The signs of stressful state are: increased anxiety, feeling of crisis or great obstacle, inability to focus on something, too frequent mistakes in work, memory deteriorates, too often there is a fatigue feeling, very fast speech, feeling of loss of control over himself/herself, thoughts often get changed, fairly often pains (head, back, stomach) appear, increased excitability, irritability, work does not give the former joy, loss of sense of humor, the number of smoked out cigarettes sharply increases, passion for alcohol, constant feeling of malnutrition, the appetite gets lost, the inability to finish work in time (Oliynyk, 2004).

Having considered the signs of stress, it is necessary to get acquainted with the causes of stress. The common causes of stress are (Orlov, 2006): – the impact of the environment (noise, pollution, heat, cold ...); – load (high intensity): physical (muscular); physiological (illness, disorder, trauma ...); informational (excessive amount of the information to be remembered, remade ...); emotional;

production (significant changes at work, difficulties and conflicts ...); load in medical activities; – monotonousness in activities, in emotional contacts; – everyday irritants: lack of necessary amenities, small quarrels with others, tense psychological atmosphere, waiting, late attendance; – absence of habitual, wanted social connections, social isolation, violation of emotionally significant interpersonal relations; – difficult life situations: illness, death of relatives, difficulties experienced by relatives, loss of work or threat of loss of work, rapid changes in living conditions; – the critical times of life: divorce, the birth of children, the beginning and the end of training, the transition to a new job, retirement – personal disharmony: intrapersonal conflicts, the crisis of inconsistency of the real and desired I, the crisis of personality development; – dissatisfaction with material provision; – uncertainty or specific threat; – social and socio-psychological factors (unemployment, social insecurity).

Along with the stress-producing factors common to all people, there are a number of professional stress-factors in the work of specialists of the emergency medical aid service (Oliynyk, 2004): responsibility, the need to constantly be the object of observation and assessment, to confirm their competence, as well as the variability of activity. The latter factor needs to be allocated specifically not only because it is associated with the brightest distinguishing feature of the activities, but also because its effect over the years is intensifying, unless a specialist of the emergency medical aid service develops his/her own individual strategy of behavior. Everyday stress consists of actions of many stressors of small power, ordinary troubles in labor, training, household and family life. People often underestimate the consequences of this influence. However, it is becoming increasingly widespread that the dozens of small troubles is more harmful to health than rare severe stresses. In addition, the causes of stress may be caused by the following : – much more often a person has to do not what he/she would like to do, but what he/she needs to do, what is included in his/her duties; – a person constantly lacks time – does not have time to do anything; – something or someone hurries, a constant rush; – it begins to seem to a person that all the surrounding people are in a state of some internal tension; – a person does not like almost anything; – there are constant conflicts at home, in a family; – constant feeling of dissatisfaction with life; – a person has nobody to talk about

the problems, and there is no particular desire; absence of a sense of self-respect at home, at work; According to some authors, the main criterion of stress resistence of a person is the level of his/her ability to adapt in a complicated and demanding world (Timchenko, 2000).The whole aggregate of human qualities that promote or hinder adaptation (adjustment) is called adaptibility. Successful adjustment of a person to realities, to life is called adaptedness, and the violation of such an adjustment – maladaptation, which leads to various disorders in the body's activities, including diseases (Nikiforov, Ananyev, Gurevich, 2000).

This especially concerns the «youngest system» of the human body, a nervous one, which was unable to manage in its development (adjustment) by the grand changes that had emerged in the life of all mankind in the last century. This was it which was the weakest link in the human body. Therefore, the main cause of stress is the maladaptation of the nervous system to the conditions of modern life.

According to P. Simonov, adaptability increases with «armament». «Armament» is good education, high professional training, possession of many attainments and abilities, developed ability to contact with people, the ability to compromise, positive thinking attainments, art to have plenty of self-control and be different. «Armed» can do everything, he/she is honored and appreciated, he/she is not threatened by unemployment, he/she does not feel fear of life, self-assured. And he/she, having no exceptional natural gifts, is well adapted to life and to stress (Tracy, 2000). However, a person does not quite increase his/her «armament». Moreover, he/she significantly worsens his/her disease-resistance by ignorance, which according to Tibetan medicine is understood as lack of education in matters of health preservation, and eclipse, which is treated as neglect of the state of health of informed, educated people. A man constantly has to overcome difficulties, but not all of them affect the psyche and cause stress. The psychological fortitude of a person allows to maintain even spirits and internal harmony. Internal (personal) and external (interpersonal) resources support the psychological fortitude (stress resistance). The internal resources are: concurrence of realistic and desired I of a person, self-respect, conformity of achievements with harassment, sense of meaning of life, consciousness of activity and behavior; belief in

reaching the goals set, the assurance that everything that happens to a person is a consequence of his/her own efforts and actions, extraversion, a personality characteristic that defines the orientation of interests on the surrounding world, good physical health, endurance, the ability to use effective methods of overcoming stress (relaxation, positive thinking), a high level of psychological culture (Kraynova, 2010). The main external resources are interpersonal and social support – support of relatives, friends, employees, their specific help in matters. This gives a person the opportunity to make emotional disclosure, to experience a sense of cohesion. The important thing is also the preservation or desire to change the status – a family, official, social one. The individual features that cause a decrease of stress resistence include: increased anxiety; irascibility, hostility, aggression, directed at himself/herself; emotional excitement, instability; pessimistic attitude to a life situation; long-lasting negative experiences; unsociability. In addition, the psychological fortitude is reduced by: complication of self-realization; perceiving himself/herself as a loser; intrapersonal conflicts. The knowledge of resources of human stress resistance gives him/her the opportunity to consciously work on himself/herself, preventing their negative action.

Thinking in the psychological scientific space is defined as a process of cognitive activity of an individual characterized by a generalized mediated reflection of reality. Thinking often unfolds as a process of solving a problem in which conditions and requirements are distinguished.

Positive thinking as a way of psychic self-regulation is characterized by the fact that a person consciously controls his/her thoughts, emotions and does not allow negative thoughts and emotions to be rooted. At the same time, a person believes in himself/herself, believes in ultimate success, remains optimistic in all circumstances.

As a rule, it is typical of the positive «I-concept» of an individual and is a habit to a certain extent.

Mastering positive thinking helps a person to realize his/her potential and create his/her life. It gives a person who persistently and passionately goes to it (masters it):

• self-belief;

• contributes to obtaining success in any business;
• successful overcoming of obstacles, failures, crises;
• more «calm» adaptation to changes in life;
• optimism, self-control, benevolence, life satisfaction;
• good relations with people;
• healthy lifestyle.

In addition, positive thinking is invariant. It can be used by any person in all spheres of his/her life.

The “Smart World” system takes the important place in the formation of optimistic personal qualities. It was developed by a popular Russian writer, psychologist Oleksandr Svyiash. It has already helped a large number of people in many countries of the world to make their lives the way they want. That is, these people managed to get rid of the problems that filled their lives with negative experiences. And they managed to reach those goals in various spheres of life that previously seemed unattainable to them.

The «Smart World» system is a positive life philosophy, according to which:

1. Any person is born for joy and spiritual development.

2. Any person in the potential has unlimited opportunities to create his/her life. But in most cases, he/she uses them unsatisfactorily.

3. The situation, which each person is in, is the best situation that he/she has been able to create for himself/herself today. This is the result of his/her efforts only, so you need to start enjoying it right now.

4. There is nobody except for us who creates problems for us. We are responsible for everything we have in our lives (other people are responsible for their lives themselves).

5. Each person can change his/her (not the other!) situation for better at any given time. In order to do this, he/she only needs to understand how he/she created his/her own problems and change his/her attitude to this situation.

6. Our consciousness in the form of explicit and hidden thoughts and attitudes defines our actions, and our actions form that objective reality that we are dissatisfied with. So, by changing our thoughts, we will change our actions and our reality.

Smart way helps those people who believe in themselves and make efforts to change their situation for a better one. Smart way will provide such people, including future specialists of the Emergency Medical Aid Service, with a real tool for managing their lives, happiness and success.

The psychic self-regulation of one's life is a strategic direction that will help people become healthier, happier and more joyful. And therefore the most important task of any person who wants to regulate his/her relationship with the external and internal world – to completely switch to the principle of self-regulation of your body, to move away from the passive-subordinate life orientation to the active-creative one. In general, self-regulation (especially psychic) in its modern form is the main skill of a person to adapt to life and act adequately to circumstances, achieving desired happiness.

Training program of the formation of sanogenic thinking of future specialists of the Emergency Medical Aid Service as a factor of counteraction to emotional stress.

Today the problem of the formation of sanogenic thinking of future specialists of the Emergency Medical Aid Service is relevant to both science and society. So that the specialists could successfully adapt to the new conditions of life, harmonically and effectively solve conflicts, interact in a particular environment, it is necessary that they acquire appropriate adaptive forms of thinking and behavior and are able to maintain their health and health of the people that got into an emergency, are ecological for others.

The application of various active forms of learning – role games, trainings, solving situational tasks, organizing thematic discussions or «brainstorming» – is gradually being spread both in the world in general and in Ukraine in particular. Psychological training as a method of active social psychological training today is one of the most common types of psychological work. It is the most relevant and dynamic in the market of psychological services, which can be provided by social psychology, because it attracts people by its efficiency, confidentiality, internal openness, psychological atmosphere, individual and group reflection and other phenomena. Its significance is that it allows to effectively solve problems related to the development of communication attainments, management of our own emotional states, self-knowledge and self-perception,

personal growth (Tracy, 2006). The use of training sessions provides an opportunity in an accessible form to acquire the knowledge that is necessary for the formation of sanogenic thinking of a person. That is why the training program is one of the effective means of forming sanogenic thinking of the future specialists of the Emergency Medical Aid Service. The training program is generally directed at the development of attainments of adaptive work with negative thoughts, the formation of self-observation and self-examination attainments, growth of self-awareness, recognition of the emotions emerging as a reaction to automatic thoughts, psychic work with negative emotions and states, the development of interpersonal communication attainments, the development of positive attitude towards yourself and others, which with result in the achievement of the psychological well-being of the specialists of the Emergency Medical Aid Service. The intensive group communication is a promising form of psychological aid. The experience, which the specialists of the Emergency Medical Aid Service are gaining in a training group, helps to solve the problems that arise in various areas of their lives. As K. Rudestam notes, «a group is a microcosm, a miniature institution that reflects the outside world and adds realism to artificially created interaction» (Scherbatyh, 2008). In the process of work with the help of intensive group experience, they carry out the reconstruction of existing attitudes, practical mastering of a spectrum of professional attainments, optimal participation in communication, transformation of existing interpersonal relationships into truly personal ones, the process of self-acceptance, self-disclosure and self-realization is happening. The training program includes the following blocks: – recognition and awareness of emotions; – work with nonadaptive cognitions and destructive attitudes; – psychic practice of working with emotions and feelings (shame, guilt, insult, envy, fear); – formation of positive self-perception and attainments of social contacts. Also, in the process of the development of the training program, we relied on the ideas of positive psychotherapy, in particular on the peculiarities of forms of conflict resolution (physiology and psychosocial strain situation) (Scherbatyh, 2008). which is modeled in a particular life situation involving specific concepts:

1. Body (sensation): in the foreground there is a body-I-perception. Basic questions are: How does a person perceive his/her body? How does he/she experience different feelings and information from the external environment?

2. Activity (mind): here are the ways of forming the norms of activities and their inclusion into the I-concept. «Thinking» and the mind make it possible to systematically and purposefully solve problems and optimize activities. There are two multidirectional escape reactions:

a) «escape» to work;

b) «escape» from the requirements of activities.

Typical symptoms are the problems of self-esteem, overload, stress reactions, dismissal fear, attention failure and «deficit symptoms», such as pension neurosis, apathy, decreased activity, etc. The most common concepts of this area are: «If you can do something, then you represent something out of yourself»; «Settle a case – enjoy playtime with a clean conscience» and «No pains, no gains», «Time is money» and so on.

3. Contacts (tradition): this field implies the ability to establish and maintain relationships with himself/herself, partner, family, other people, groups, social strata and other people's cultural circles; the attitude towards animals, plants and things. Social behavior is formed by the influence of experience and acquired traditions, especially this concerns the formation of our abilities to forge relationships. There exist socially determined selection criteria that govern them: for example, a person expects politeness, sincerity, justice, accuracy, community of certain interests, etc. from a partner and chooses a partner according to these criteria.

4. Fantasy (intuition): you can react to conflicts activating fantasy, imagining a solution to conflicts, picturing in your mind the desired success or punishing and even killing in your dreams the people whom the anger accumulated on due to the fact that someone was unfaithful, was wrong or adhered to other beliefs. For example, fantasy and intuition can violate and even satisfy the need during creative researches and sexual fantasies. As a «personal world», fantasy separates from traumatic and painful interferences of reality and creates a temporarily comfortable atmosphere (for example, alcohol, toxic substances addiction).

The application of the four forms of conflict resolution aims at preserving the balance of mind of a person, a decisive factor for a balanced state of mind is the ability to think sanogennically. In the personal sphere, one-sidedness in the four qualities of life appears outwardly in the open forms of the four «escape» reactions– this «escape» to the disease (somatization), into vigorous activity (rationalization), into loneliness or communication (idealization or depreciation) and fantasy (negation) (Berezjuk, 2011). The training program envisages the development of characteristics of the psychological profile of a person who thinks sanogenically, namely: the development of reflexivity, volitional self-regulation, the creation of a positive energy potential (the situation of the emotional experience of joy) and positive emotional reaction and environmental stimuli, the development of neuropsychiatric resistance and stress resistance, the provision of a sustainable level of adaptation resources, the development of behavior flexibility, the ability to preserve a certain degree of psychological stability in stressful conditions and independently return to the state of balance, the creation of a situation of inner peace and harmony (Berkovits, 2006). Therefore, in our opinion, the key in the fight against pathogenic automatic thoughts is the training of future specialists of the Emergency Medical Aid Service of sanogenic thinking in stressful situations associated with special conditions of professional activities. All these psychological technologies allow to carry out psychic recovery, that is the restoration of psychic performance capacity and adaptibility to the social environment by restoring the amount of energy and harmonizing the human psyche (Greenberg 2002). The expansion of the possibilities of psychic self-regulation contributes to the harmonious balance of the whole organism. Such a bulky integral approach to the formation of sanogenic thinking will ensure the full value of the psycho-physiological functioning of an individual at all levels of his/her activities. In our opinion, mastering the sanogenic thinking attainments, which includes the development of self-observation and reflection attainments, the reconstruction of existing attitudes, the removal of physical and psycho-emotional stress, the regulation of the behavior of future specialists of the Emergency Medical Aid Service, will improve the person's adaptibility to the social environment. The main goal of the training

program is the formation of sanogenic thinking among future specialists of the Emergency Medical Aid Service. Based on the results of the diagnostics and interviews, the following training objectives were identified: 1) to familiarize future specialists of the Emergency Medical Aid Service with the main ideas of the sanogenic thinking concept; 2) to reduce the manifestation of pathogenic and automatic thoughts arising in situations of strain and stress; 3) to acquire the basic ways of mastering sanogenic thinking: familiarization with the range of methodologies of Yu. Orlov, A. Ellis, N. Pezeshkian, J. Jampolsky, L. Hay and others; 4) to form skills and attainments of constructive conflict resolution in communication, emotional and behavioral self-regulation, psychological analysis of situations; 5) to form positive self-perception and social attainments of future specialists of the Emergency Medical Aid Service in the process of acquirement of sanogenic thinking. The principles of work of the group are as follows: 1) a clear structured style of conduct – all classes are clearly planned, conducted on certain days and at a certain time, the duration of each lesson is fixed, all instructions are clearly formulated; 2) avoidance of emotional and information overload; 3) a gradual transition from rigid structuredness with a focus on the trainer's explanation to increasing spontaneity in intergroup interaction; 4) a gradual transition from a more directive style to a less directive one; 5) a gradual transition from emotionally neutral material to emotionally rich; 6) a gradual introduction of new material and the transition to more complex goals and objectives; 7) constant repetition and working out of preliminary tasks; 8) obligatory feedback between the trainer and future specialists of the Emergency Medical Aid Service; 9) a ban on criticism both on the part of the trainer and on the part of other group members; 10) the saturation of sessions with positive emotions – any success, even the most insignificant one, is marked; 11) exchange of thoughts, observations and experiences at all stages of work; 12) attraction of active rest and occupations of different kinds of hobby as an additional way to overcome tiredness and stress; 13) control over performance of homework by future specialists on the Emergency Medical Aid Service.

In the process of training the following techniques are also used: 1) instruction – how to overcome certain situations that cause stress, pathogenic thoughts; 2) feedback – analysis of certain coping strategies and types of behavior, reinforcement of the correct decisions; 3) modeling – working out a certain model of behavior (with the participation of the trainer or other members of the group); 4) role-playing; 5) social reinforcement – encouragement during finding the right coping strategy; 6) homework. The training program on acquirement of sanogenic thinking consists of 20 sessions and is designed for 40 hours. The program envisages the humanistic position of the trainer and aims at awareness of the participants of themselves, value orientations, the growth of an individual, the confirmation of the need for self-actualization. It is based on the principle of graduality, stepping: each subsequent step should logically flow from the previous one. Due to this, a man is gradually deepening in the process of awareness of himself/herself, revealing different sides of his/her «I», which is the basis for change, transformation of his/her thinking in sanogenic thinking. Each session involves: 1) receiving new information about sanogenic thinking and about yourself; 2) rethinking the notions about the image of his/her «I», his/her thoughts, feelings, actions in the light of receiving new knowledge; 3) reproduction, experience of the investigated emotion; 4) building a new type of relationship with himself/herself and others; 5) consolidation of positive experience in acquirement of new thinking and getting rid of non-constructive ways of responding. Each session begins with reflection, which allows the host to get information about the state of participants, the desire to start work (whether they had a good rest, what they dreamt about, whether they had any difficulties in communication at sessons, at home, in the street). Next, the trainer asks if the homework was done: whether they tried to do it, what difficulties occurred, what they were feeling while performing the tasks on acquirement of sanogenic thinking.

Then the topic and the objectives of this sesson are announced, the transition to its main stages is carried out.

At each meeting, a warm-up is performed. It usually takes place after the reflection stage and before the start of acquirement of new information. Warm-up can be performed at the beginning, in the

middle and at the end of a sesson in order to remove fatigue, tension or inclusion in the work. At the end of each session, the “here and now” reflection of the work process is performed (attitude to events, your contribution to the work, who supported and who disturbed the work, etc.). Then, homework is offered in order to consolidate the knowledge and attainments gained at the past meeting. Social and psychological training on the sanogenic thinking formation included four blocks. In order to understand whether the goals have been achieved, we shall analyze each of them.

The first block “Development of emotion recognition and awareness skills” was aimed at the self-observation and self-examination skills formation in future specialists of the Emergency Medical Aid Service. The following main tasks were defined: 1) motivation, problem statement, acquaintance; 2) creating a positive atmosphere and mood; 3) introduction of group interaction elements; 4) identification of typical problem situations in the employment activity of lifesavers; 5) working out the skills of detection of automatic thoughts and their estimation on the game models; 6) recognition of emotions that appear as a reaction to automatic thoughts; 7) development of self-observation skills through journaling for the recording of situations and thoughts and emotions related to them; 8) discussion of techniques and methods for negative emotion overcoming, which are already used by future specialists of the Emergency Medical Aid Service. The block consists of four classes.

The second block “Working with inadaptive cognitions and destructive attitudes” was aimed at the development of self-observation and self-examination skills in future specialists of the Emergency Medical Aid Service, as well as the formation of skills of adaptive work with negative thoughts. The following main tasks were defined: 1) identification of the causes of inadaptive cognitions, the manifestation of pathogenic thinking; 2) training of the evaluation of automatic thinking; 3) search for a rational response to automatic thinking; 4) identification of the thoughts that suppress the confidence of future specialists of the Emergency Medical Aid Service the most; 5) discussion of difficulties and ways to overcome them. The block consists of four sessions.

The third block “Mental practice of working with emotions and feelings (shame, guilt, insult, envy, fear)” was aimed at the formation of self-observation and self-examination skills in future specialists of the Emergency Medical Aid Service, as well as the mental work with negative emotions and conditions. The following main tasks were defined: 1) acquaintance with the emotion formation mechanism; 2) determination of the role of personality’s thinking and affection; 3) development of the ability to reflect and analyze the products of self creation on the basis of studying the peculiarities of sanogenic thinking; 4) ability to track down your own negative emotions, understand the nature of their formation; 5) to acquaint the group participants with the peculiarities of the formation of insult, shame, guilt, envy, fear and the ways of working with them; 6) development of skills of sanogenic thinking mastering. The block includes six sessions.

The fourth block “Formation of positive self-perception and social contact skills” was aimed at the formation of self-observation and self-examination, interpersonal communication skills in future specialists of the Emergency Medical Aid Service. The following main tasks were defined: 1) discussion of difficulties in communication that arise in the educational activities; 2) identification and discussion of real interpersonal situations that caused difficulties; 3) discussion of possible behavioral options and dialogues in such situations; 4) role-playing; 5) discussion of results of the role-play, identification of the ways to overcome difficulties during communication; 6) development of skills of sanogenic thinking mastering. The block includes six sessions. The result of the training sessions on the sanogenic thinking formation in future specialists of the Emergency Medical Aid Service should be the formedness of sanogenic thinking characteristics.

The training should change the attitude of future specialists of the Emergency Medical Aid Service towards themselves, helps them to understand themselves and the behaviour of others, allows them to look for constructive ways to solve problem situations in mutual relationships, will have a positive impact on their success, will promote the professional and social formation.

Conclusion

The sanogenic thinking of future specialists of the Emergency Medical Aid Service that helps to overcome negative emotions and to improve psychological well-being of a person is directly related to the positive type of emotional response to stimuli, the medical students have a positive personal sense or social value for them (good weather, joyfulness, compliment of others, joke). During this type of thinking, a student separates himself/herself from his/her own emotional experiences and observes them; he/she recreates the stressful situation amid the peace and concentration of attention, adapts to it.

The sanogenic thinking determines the intensity of psychosomatic complaints, which is characterized by reaction expressiveness regardless of their quality or orientation, and is inversely related to the high level of neuropsychic fortitude. The latter suggests that future specialists of the Emergency Medical Aid Service are notable for their maturity, high adaptibility, and lack of noticeable tension. The sanogenic thinking, which plays a fundamental role in solving individual's own internal problems, is directly dependent on maintaining a positive attitude towards oneself, recognizing and accepting all his/her own personal diversity, which includes both good and bad qualities, including a positive evaluation of his/her own past.

Apart from that, the sanogenic thinking directly depends on reflexivity, which manifests itself in the ability to analyze your deeds and actions, to critically understand your peculiarities, to see the possibilities for self-regulation of your activity, especially in cases when it is necessary to solve any vital tasks, to make decisions in a variety of situations, and envisages the formation of a certain moral and psychological image of an individual, which, as a function, is aimed at the individual's spiritual world, to increase moral dignity of a man.

The sanogenic thinking directly depends on the component volitional self-regulation, which reflects the level of arbitrary control of emotional reactions and conditions. This characterizes future specialists of the Emergency Medical Aid Service as emotionally firm, they have a good self-control in different situations. They are characterized by inner peace, their self-confidence increases

readiness for the perception of new, unpredictable and, as a rule, is combined with the freedom of judgements, with a tendency towards innovation and radicalism.

Summary

The article deals with the theoretical and methodological principles of the sanogenic thinking formation in specialists of the Emergency Medical Aid Service.

The specific features of pathogenic and sanogenic thinking, which are typical of the specialists of the Emergency Medical Aid Service, were analyzed.

Some directions of the formation of recreational thinking in specialists of the Emergency Medical Aid Service were offered, which will provide the latter with the reliable moral and ethical functioning in the process of fulfilling the tasks for the intended purpose.

These tasks should be solved gradually. Firstly, the professional training period is favourable for the thinking type correction. The acquaintance of the medical students with the basics of professional activity, their first steps in it make adjustments in the worldview of a future specialist, in his/her thinking, which will ensure a reliable moral and ethical functioning of an individual. Secondly, the provision of emergency aid to all categories of injured cannot but affect the personality of a specialist. Therefore, a special attention should be paid to the issue of development of psychological correctional programs by psychologists and the restoration of professional health of specialists of the Emergency Medical Aid Service in order to prevent the occurence of different levels of professional deformation. A person cannot become really healthy, to provide medical care to those who need it, unless he/she learns to manage his/her own state of mind, emotions, feelings and thoughts. That is why the sanogenic thinking is one of the effective means of psycho-traumatic problem solving, which is based on conscious analysis and experience, conscious reflection of your own emotions and emotiogenic (stress-producing) factors and high degree of your own responsibility for the results of the performed activity.

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Immune Power Personality Questionnaire – Rationale, Development and Psychometric properties

Introduction

As early as in 1964, Solomon and Moos suggested a theoretical model integrating the possible relationships between emotions, immunity and disease and made a claim that certain personality factors may make a person susceptible to disease through the impact of the nervous system on the immune system. In reference to this, Antonovsky (1987) proposed that there may also be personality characteristics which enhance immunity and make a person resistant to negative consequences of stress on health. In line with this claim, Antonovsky postulated the concept of sense of coherence – a general personality orientation which stimulates the immune system to work more effectively and reduces the risk of illness.

Following the salutogenic path of research commenced by Antonovsky, Dreher (1996) proposed a similar concept as a result of his systematic review of the results of a series of studies that identified specific personality characteristics associated with physiological resilience. His literature review led him to conclude that there are seven personality traits which together build up what he labelled the Immune Power Personality (IPP). While discussing immunologically strong personality traits in detail, Dreher (1996) supplemented their description with findings from empirical studies containing, among others, results of measurements of immunological parameters and case studies, which were to additionally provide evidence for their relationship with better health.

Dreher (1996, p. 2) believes that the IPP is characteristic of a person who perceives the stressful situation or the crisis as an opportunity for development without denying it; it is also characterized by flexibility and high adaptability to the environment and social situations; he can find joy and meaning of everyday life.

Immune power personality traits distinguished by Dreher (1996) are associated with more effective coping with stressful everyday events and constitute the so-called «Healthy traits» that protect against distress. These «healthy traits» of the personality can be treated as personal resources that allow the individual to cope with his or her own emotions and social situations, and to enjoy good well-being and health.

According to Dreher (1996), the traits that make up an IPP can be strengthened. This proves that they are not fixed and immutable elements of personality that only some people inherit, but are considered by Dreher as resources and so-called. healthy capacities, possessed from birth and expressed in an individual way.

Despite the name indicating essentially the personality associated with the physiological aspect of human functioning, an IPP is a complex theoretical construct including the name of the constellations of various traits for which a connection with mental and physical health has been demonstrated.

According to Dreher (1996), the immune power personality consists of seven traits, also referred to as healthy capacities or health-promoting traits, which positively influence both the psychological well-being and the condition of the body, allowing her to enjoy its health. The properties distinguished by Dreher can be recognized in the category of traits or dispositions for a particular behavior that occur in individuals on a certain continuum.

Each of the features described in the Dreher concept is directly or indirectly related to the «stronger» and more efficient immune system. Belong to them:

ACE – Attend, Connect and Express. The concept of ACE factor is related to the research of American psychologist Gary E. Schwartz, who recognized that the ability to notice, connect and express internal states coming from the body is associated with more efficient cardiovascular system and immune system (after: Dreher, 1996, p. 2-3).

Capacity to confide – means the ability to reveal your secrets, traumas, deepest thoughts, feelings and memories from yourself and

other people (Dreher, 1996, pp. 96-124). Pennbaker demonstrated in his numerous studies (eg. Pennebaker et al., 1995, Pennebaker, Glaser and Kiecolt-Glaser 1988; Pennebaker, O'Heeron, 1984) on the disclosure of traumatic experiences that individuals who reveal and confide in their secrets, traumas and feelings about themselves and others, have faster immune responses, healthier psychological profiles and show significantly fewer cases (see Dreher , 1996).

Hardiness – includes three components constituting three occurring properties in one form: 1. A sense of control – a sense of control over the quality of your life, health and social conditions, 2. A sense of commitment – a strong commitment to your work, creative activities and relationships, and 3. A sense of challenge – perceiving stress more as a challenge than a threat. People who have these three traits suffer less from chronic diseases and report less symptoms than those who do not. Individuals with a strong character also have a more powerful immune system (Dreher, 1996). The strength of character is thus a constellation of personality traits that function as immune resources during stressful events (Kobas and Puccetti, 1983, p. 840). People with a resistant personality show a high degree of involvement and control and tend to perceive stressors as a challenge.

Assertiveness: this attribute can be defined as the ability of individuals to be assertive expressing their needs, thoughts, opinions and feelings, while taking into account the feelings and needs of other people and the ability to accept praise, criticism and refuse to others (Dreher, 1996, p. 175). Solomon's research aimed at identifying psychological factors affecting immunity in AIDS patients noted that assertiveness was strongly correlated with higher activity of immune cells. Interestingly, this effect affected not only one type of immune cells, but many types of cells considered crucial in the fight against HIV infection (after Dreher, 1996, pp. 170-171).

Affiliative trust: means positive desires, full of love relationships based on respect and trust, as opposed to the motive of affiliation, which only defines the need for people to create relationships (see Dreher, 1996). Affiliate trust is the easiness of establishing deeper relationships (eg friendship) with other people and is associated with the positive expectation of the individual regarding these relationships. In contrast to the experience of love, which positively affects the immune system, a sense of loneliness, as proved, among

others Kiecolt-Glaser et al. (1984) in psychiatric patients, is associated with less activity of immune cells.

Healthy helping – means helping others, whether close to others or not to strangers (Dreher, 1996, pp. 255-287). People who help not only friends and family, but especially strangers, have a healthier immune system, feel less back pain and feel significantly better compared to people who are not involved in help others (see Dreher, 1996, pp. 258-260; 283).

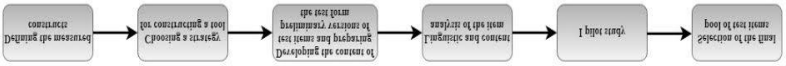
Self-complexity – characterized by people whose personality has a variety of well-developed elements (including, among others, social roles, relationships with other people, activities, interests, identity), is versatile and integrated at the same time (Dreher, 1996, p. 289). Individuals with this feature think about themselves in many categories, take many social roles, have many interests, and at the same time are able to integrate them.

It should be noted that so far not developed the tools that would allow an integrated methodological way to measure all seven IPP traits.

Material and methods

The research covering the next six stages of IPPQ development is presented in flow chart 1.

Flow chart 1.



Results and discussion

After reviewing available studies and concepts for each of the studied properties individually, operational definitions of seven IPP traits were developed (step 1.). The previously defined IPP traits in the form of test items have been reconstructed (step 2.). On the basis of definitions and literature of the object, indicators of each of the traits were searched for in the form of behaviors, beliefs and emotions. In this way, preliminary experimental scales were constructed, separate for each of the seven features. In this way developed versions used a four-scale answers «definitely yes» to «Definitely not» (step 3.). Pools of test items (about 300) were

subjected to linguistic and content analysis using the method of competent judges. As the competent judges, students of the 4th year of psychology at the University of Finance and Management in Warsaw with the specialization in health psychology were selected. Each of the competent judges received sheets with given definitions of a given trait and with test items generated for this feature. The task of the judges was to assess the conformity of the content of each test item with the given definition of the feature. The assessments were made on a 10-point scale, where higher values meant higher relevance of the given item. The aim of this stage of the research was to determine how accurately individual test items were operationalizing the definitions of IPP traits. High accuracy of a given item is evidenced by high average grade issued by competent judges and high compliance of judges' assessments. The results obtained in this way were later used as one of the criteria for selecting the item pool for the final test version (step 4.). Pilot study I (step 5.) was conducted using the full initial pool of test items, for each feature separately, in seven different samples of subjects. Table 1 presents the basic sociodemographic characteristics of the subjects' trials in which initial sets of test items for each feature were tested.

Table 1

Sociodemographic structure of the samples of the respondents participating in the pilot study I

Sample	Trait	Sex					Age			
		Female			Male					
		N	*N*	*%*	*N*	*%*	*Min*	*Max*	*M*	*SD*
1	ACE	83	63	75,9	20	24,1	15	61	29,3	10,86
2	Capacity to confide	50	35	70	15	30	19	73	30,74	13,98
3	Hardiness	51	30	58,8	21	41,2	19	46	24,53	5,33
4	Assertiveness	88	48	54,5	40	45,5	18	55	25,3	7,92
5	Affiliative trust	68	30	44,1	38	55,9	19	60	32,56	12,72
6	Healthy helping	72	41	56,9	31	43,1	19	69	34,35	13,18
7	Self complexity	53	22	41,5	31	58,5	18	71	33,82	11,96

The selection of the pool of test items to be comprised of individual features in the experimental version of the Questionnaire was made based on the combined application of criteria resulting from the examination of competent judges and pilot study I.

– in the case of content validity testing of test items performed using judges' judgments, it was assumed that the final pool for a given feature will assume those test items that are characterized by the highest average values and at the same time characterized by the highest possible judge score, measured by the standard deviation value of assessments .

– in the case of the criterion from the pilot studies, it was assumed that for each feature, the test items that would reduce the reliability of the scale (increase of the Cronbach alpha value for the scale after removing the item) will be rejected. Applying this criterion, test items reducing reliability were eliminated one by one, systematically until the further elimination of items did not lead to an increase in reliability.

A total of 63 test items were selected in this way, which were included in the experimental test version, this time containing test items for all characteristics on one sheet (IPPQ v. 1).

II Pilot study

Items selected in the previous stage of the questionnaire design were placed on one sheet, but their arrangement was made so that the items examining the given feature would not be directly adjacent to each other. The pilot study II with prepared with Social Approval Questionnaire (Drwal, Wilczyńska, 1980) had two aims:

1) re-verification of psychometric properties of test items and subscales, if the test items are placed in one test sheet and

2) assessment of the dependence of results obtained in the Questionnaire on the social approval variable.

The study was conducted on a group of 211 people (153F / 58M; Age: M = 35.05, SD = 13.79)

The properties of the distribution of the IPPQ v.1 scales, however, indicate satisfactory distribution properties. All subscales and general result turned out to have distributions not significantly different from normal distribution. The skew rates were close to low, and the kurtosis

values were acceptable (only for the general result, kurtosis exceeded 1.0).

All scales of IPPQ v.1 showed statistically significant positive correlations with the variable social approval. The strongest correlations were recorded for the Healthy Assistance, Affiliate Trust and General Results scales. Values of correlation coefficients for these subscales reached values close to 0.50. The analysis of the correlation matrix between individual test items and the social approval variable showed that many items are statistically significantly correlated with social approval, in the case of a few items r> 0.40. Therefore, the test items were further revised, removing the items that most strongly correlate with the variable social approval. At the same time, due to the relatively strong dependencies of the IPPQ v.1 scales with variable social approval, we decided to introduce a control scale to the questionnaire, measuring the intensity of the need for social approval. The introduction of such a scale will provide the opportunity to better control attitudes towards testing adopted by the subjects.

Additionally, within each of the IPPQ v.1 subscales, the reliability analysis was re-analyzed, analyzing the contribution of each test item to the increment of reliability of the given subscale.

The content of some of the test items has been modified and 9 new test items have been added, in particular to the subscales with the lowest reliability coefficients. As a result of these analyzes, the number of test items was reduced to 55. The resulting version of the questionnaire was named IPPQ v. 2 and subjected to pilot study III.

Pilot study III

The primary goal of this study was to develop a social approval subscale that would serve as a control scale in IPPQ. 170 people participated in the study (93F / 77M, Age M28,48, SD = 11.21). In order to construct an internal IPPQ control scale measuring social approval, it was decided to use partly the test items from the Social Approval Questionnaire. Therefore, 5 items were selected which were the most correlated with the overall result of this questionnaire. Subsequently, these items were included in IPPQ as a control scale.

An analysis of the reliability of the IPPQ v.2 subscales was carried out and in the course of this analysis the test items subscribing to the smallest contribution to the reliability of a given subscale were eliminated from some of the subscales. Three items were eliminated, leaving each of the scales measuring immersive personality traits after the 6th position. In this way, the final version of the questionnaire (henceforth referred to as IPPQ) was obtained, covering a total of 49 test items, which included 42 items measuring immuno-strong personality traits and 7 items from the control scale measuring social approval. At the same time, new order-alignment of test items was introduced.

Validation study

By means of the final version of the test, validation tests were carried out in which persons recruited from the general population were examined.

The validation study was conducted on a sample of 727 people recruited from the general population. This sample included people aged between 16 and 81. About 63% of the sample were women, and about 36% – men.

Among the respondents, the most numerous group were people with secondary education (about 34%) and master's degree (about 32%). The largest subgroup of respondents (about 38%) lived in a large city (over 100,000 residents), the least numerous were people living in the countryside (about 18%). The largest subgroup of respondents (about 38%) lived in a large city (over 100,000 residents), the least numerous were people living in the countryside (about 18%).

Reliability of IPPQ

For individual subscales of the final version of the IPPQ questionnaire, a reliability analysis (internal compliance) was carried out using the alpha-Cronbach coefficient. The obtained reliability ratios for 8 subscales and the Global Score are included in Table 2. Counted as indicators of stability (test-retest), expressed as a coefficient of r-Pearson correlation between the two measurements carried out among the same people in 4 weeks apart. This estimate of

reliability was made on a separate sample rather than a validation test. The sample consisted of 44 people, 34 women and 10 men. The average age was in this sample M = 26.32 (SD = 8.83). The values obtained are shown in Table 2.

Table 2

Internal compliance coefficients (alpha-Cronbach) and constancy (test-retest) for individual IPPQ scales

IPPQ scales	Reliability (alfa-Cronbacha)	Reliability (test – retest)
ACE	0,62	0,72
Capacity to confide	0,87	0,75
Hardiness	0,81	0,67
Assertiveness	0,84	0,85
Affiliative trust	0,8	0,73
Healthy helping	0,85	0,84
Self complexity	0,84	0,82
Global score	0,92	0,87
Social approval	0,65	0,85

The reliability of the IPPQ questionnaire is satisfactory. The obtained reliability coefficients estimated by internal compliance (alpha-Cronbach) for most subscales are high (above 0.80). The highest possible reliability was in the general score and subscales: Capacity to confide and Assertiveness. Relatively lower reliability coefficients were obtained in the ACE factor and Social approval scales. Satisfactory and high values of alpha-Cronbach's reliability coefficients indicate the internal conformity of the tool and prove that the measurement can be treated as reliable.

The obtained stability ratios for most scales are generally similar or slightly lower than the internal compliance rates. For the ACE factor and Social Approbal subscales, the sustainability ratios were higher than the internal compliance ratios. The lowest persistence rate (0.67) was obtained for the Hardiness subscale, for other subscales, these indices were in the range of satisfactory (above-0.70) or high (above 0.80) values. The highest value of the consistency index was obtained for the overall result (0.87). These values generally indicate satisfactory or high stability of IPPQ's

results over time and prove that also in this aspect the measurement can be treated as reliable.

Factor analysis of IPPQ

In order to determine the relevance of the factor IPPQ, an exploratory factor analysis was carried out. As a method of factor extraction, the main component method with varimax orthogonal rotation with the Keizer correction was applied. As a criterion for the identification of factors, eigenvalue greater than 1.0 was assumed (table 3).

Table 3

Factor charge matrix of IPPQ test items

Scale	Item	Factor									
		1	2	3	4	5	6	7	8	9	10
Capacity to confide	10	0,81									
Capacity to confide	18	0,78									
Capacity to confide	2	0,78									
Capacity to confide	34	0,78									
Capacity to confide	42	0,71									
Capacity to confide	26	0,65									
ACE	41*	0,64								-0,2	0,05
ACE	33*	0,41								-0,07	-0,24
Affiliative trust	29		0,77								
Affiliative trust	13		0,7								
Affiliative trust	5		0,63								
Affiliative trust	37		0,63								
Affiliative trust	45		0,57								
Affiliative trust	21		0,45								
ACE	17*		0,45							0,08	0,08
Social approval	48*		0,38					0,3	0,18		
Healthy helping	30			0,83							
Healthy helping	14			0,8							
Healthy helping	46			0,71							
Healthy helping	6			0,7							
Healthy helping	38			0,68							
Healthy helping	22			0,58							

Social approval	24*			0,51				0,26	-0,04		
Assertiveness	20				0,8						
Assertiveness	4				0,77						
Assertiveness	36				0,7						
Assertiveness	44				0,66						
Assertiveness	28				0,66						
Assertiveness	12				0,65						
Self complexity	31					0,77					
Self complexity	15					0,73					
Self complexity	7					0,73					
Self complexity	23					0,72					
Self complexity	39					0,63					
Self complexity	47					0,52					
Hardiness	27						0,7				
Hardiness	11						0,65				
Hardiness	19						0,63				
Hardiness	3						0,61				
Hardiness	43						0,58				
Hardiness	35						0,49				
Social approval	40							0,68	0		
Social approval	49							0,61	0,29		
Social approval	32							0,55	0,13		
Social approval	16							0,17	0,72		
Social approval	8							0,09	0,71		
ACE	1*									0,65	-0,04
ACE	9									-0,03	0,52
ACE	25									0,03	0,49

** Items that get the highest factor load not in their factor*

A 10-factor structure was obtained. Six of the obtained factors were unequivocally equivalent to six predetermined scales of IPP traits. Two of the obtained factors were created by items belonging to the ACE scale and two factors were created by items belonging to the social approval scale.

ACE did not obtain confirmation as a separate factor in the factor analysis. The ACE Factor test items underwent factor analysis in split factor analysis: items 9 and 25 formed one factor, item 1 created an independent factor, items 41 and 33 obtained the highest factor loads in the factor Capacity to confide, item 17 obtained the highest factor load on the Affiliate trust scale . Positions that joined the scales The ability to confide and Affiliate Trust had, however, factor loads lower than the items originally forming these scales.

The positions that create a priori the Social approval scale have also been split up. Positions 40, 49 and 32 formed an independent factor, items 16 and 8 also formed an independent factor. Item 48, which is part of Social approval, joined the Affiliative trust scale and 24 to the Healthy helping scale. The last two items of the Social approval scale, in these factors, obtained relatively lower charges than the items originally forming these scales.

Ten isolated factors explained a combined 59% of the variance in the test (Table 4).

Table 4

Variance in IPPQ explained by factors distinguished in the factor analysis

Factor	Sum of squares of loads after rotation		
	Together	% variance	% cumulated
1	4,66	9,5	9,5
2	4,2	8,56	18,06
3	3,97	8,09	26,16
4	3,61	7,36	33,51
5	3,51	7,17	40,68
6	3,07	6,27	46,95
7	1,74	3,54	50,5
8	1,71	3,48	53,98
9	1,39	2,83	56,81
10	1,14	2,33	59,14

Although no 8-factor structure was obtained, six out of seven scales measuring IPP traits achieved an almost perfect mapping consistent with the assumptions. This confirms the validity of the test items to the a priori constructed subscales and the legitimacy of distinguishing these scales as measuring relatively independent constructs.

Conclusions

Summarizing, the results of the factor analysis did not confirm the validity of the ACE and Social approval as separate scales. This may indicate a common range of variance between both ACE, Social approval and other IPP traits. It should also be emphasized that the ACE Factor, by its definition, is heterogeneous – it includes the ability to recognize their own internal states, the ability to bind them

with the stimuli that cause them and the ability to adequately respond to them.

Analyzes showed that for 6 out of 7 scales measuring IPP traits, it was possible to fully confirm the legitimacy of separating these subscales in the exploratory factor analysis. The results obtained in IPPQ can be treated as personality correlates of various aspects of health. Further research should focus on verifying the validity of IPPQ. In particular, future research on this tool should focus on the comparison of results obtained in IPPQ by clinical groups of people with various disease entities and healthy individuals. In addition, further research on IPPQ should aim to verify hypotheses about the relationship between results in IPPQ and the parameters of the immune system.

The application of the questionnaire may include not only scientific research, but also the assessment of IPP among healthy people as well as patients, enabling determination of the severity of individual traits. In practice, the analysis of an individual profile of strong immunologic personality traits can not help to identify those characteristics of a person that can contribute to an increase or decrease in physiological immunity and affect health. It seems that especially the intraprofile analysis may be a valuable source of information orientating therapeutic or prophylactic activities with a specific person (eg specialist, individually developed training).

Summary

In his book, Henry Dreher described research on seven personality characteristics which had been found to be linked to the immune system functions. His literature review concluded that Immune Power Personality (IPP) encompasses such dimensions as: the Attend-Connect-Express (ACE) factor, capacity to confide, hardiness, assertiveness, affiliative trust, healthy helping and self-complexity. So far, however, no tool has been developed that would allow a simultaneous measurement of these traits. This chapter presents the summary of Dreher's research on IPP and results of the studies on development and the psychometric properties of the *Immune Power Personality Questionnaire* (IPPQ). The results provide data confirming reliability and validity of this new tool.

IPPQ can be used in future in both scientific research and in clinical practice to enhance the diagnosis and therapeutic process.

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Psychological determinants of health-saving behaviour and its disorders among young people with the status of a disabled-child

Introduction

Health is a quite complex formation which is interpreted from the standpoint of a bio-psycho-social approach. It is closely associated with both physiological and mental processes, as well as with social phenomena. An individual is a mediator in the complex process. His/her significant relationships with the world around are a formative aspect and determine health behaviour. Features of the implementation of significant relationships of the individual identify whether external factors will act as destabilising or contributing to health protection (Ierusalimceva, 2012).

Despite the fact that health psychology is quite new discipline, there are a lot of research papers devoted to the study of psychological determinants of health. Although they are all diverse good health is associated with such mental and psychological factors as stability of the emotional-volitional sphere, favourable conditions for the development in childhood, stable family relationships.

The psychological component of health is manifested in accepting own self-image, striving for self-development and harmonization of personality, high adaptive potential. Thus, it can be defined that psychological health mainly acts as a resource, and its preservation and promotion – careful action in relation to oneself. Subjective perception of health is refracted by the degree of life satisfaction. In this context, health saving behaviour serves both as a strategy and activity (Jakovleva, 2013).

First of all, social support makes it possible to cope with different stressors is a social condition influencing health. However, with regard to health saving behaviour, close people can support unhealthy types of behaviour and interfere with health promotion (Kuznecov & Zotova, 2016). The way an individual will use social support depends on his/her orientation. Consequently, the concept of valeological mindset, which is included in the structure of personality orientation, is the closest one. From that point of view, the paper concerns with marked types of valeological mindsets, which were studied along with neurotic features of a person. *Resource* type is an internal need for keeping a healthy lifestyle and its implementation through dynamic actions. A person has a coherent idea of health and disease. *Supportive* type is a need to get support from a family member. There are no clear visions of a healthy lifestyle, and taking care of others activates own resources. *Manipulative* type – state of health becomes a form of influence on others. There are differentiated beliefs about disease, and health attitude is manifested in personal passivity. *Deficiency* type – there are no visions of a healthy lifestyle, general passivity both towards health and disease (Fel'dman, 2017).

Attitude to own health is developed as a personal new formation in teenage and holds a key position in the system of values (Ierusalimceva, 2012). The target property of health is associated with professional achievements, a happy life, and diseases prevention. Emphasising the loss of health as a loss of life purpose puts it into the category of sense-making concepts.

It also was found out the difference between the appreciated value of health and maintaining a healthy lifestyle that is most often associated with such a psychological feature as ignoring the fact of health and not consider it as a current need.

The study of factors influencing the attitude to own health and socio-psychological factors of health makes it possible to mark factors which correlate with health and disease. *Independent* ones include behavioural, emotional patterns and personal characteristics, as well as cognitive, social and demographic resources. Cognitive resources make up health, a healthy lifestyle and behaviours as activities of an individual that provide means for relating them to health saving behaviour. *Transmissive* – coping with stress and behaviour forms. *Motivators* – stresses and diseases (Nikiforov, 2006). Health continuum is studied as a dynamic interrelation from

"optimal" to "fragile" one that becomes very important for young people with the status of a disabled child.

The very situation of social development, as well as the situation of medical and social expertise, has a significant impact on the personality of young people with chronic diseases and early disability status (Jakovleva, Ul'janova & Shishkova, 2016). The ambiguity of the influence of the social environment, socio-economic assistance, assessment of disability category based on new criteria differing from children's emerges full blown to study the interrelation between psychological factors oriented to health and disease of the mentioned individuals.

Methodology

The goal of the research is to study the aspects of health saving behaviour and psychological factors determining its disorder in the structure of life prospect of young people with the status of a disabled child.

Methods. It was used analysis of medical records, empirical and mathematical methods for achieving the goal. The author carries out a psychological assessment of personal traits, identity, personal attitude to selfhood, characteristics of time perspective, life goals, level of satisfaction with life, health values, the importance of the disease aspect when formulating objectives and ways for their fulfillment and the interdependence of these characteristics with limited activity and participation of young people in the implementation of health-saving behaviour. It was used the relevant psychodiagnostic tools: Cattell's 16PF No. 187, MMPI, multilevel personality questionnaire "Adaptability", test "Who Am I?", Satisfaction with Life Scale (SWLS) of E. Diener adapted by D. A. Leontyeva, E. and N. Osina, Zimbardo Time Perspective Inventory adapted by A. Syrtsova, N. S. Terekhina questionnaires for the construction of time perspective by the subject and implementation features of life goals, diagnostic of parental relations by A. Ya. Varga, V. V. Stolin, W. Schutz Fundamental Interpersonal Relations Orientation (FIRO-B) adapted by A. Rukavishnikov, M. Rokeach Value Survey, Panteleev's Self-attitude questionnaire (Raygorodskiy, 2000; Karvasarskiy, 2004; Nikiforov, 2001; Kun & Makpartlend, 2006; Osin & Leont'ev, 2008; Mitina & Syrcova, 2008; Terehina, 2014; Fin'kevich, 2002; Rukavishnikov, 1992;

Panteleev, 1993), ICF, participation and activity section (in the form of patients self-report). The paper focuses on the characteristics which can be attributed to health saving behaviour: in the "Self-service" domain it is about health care, dieting and a healthy lifestyle, health maintenance, and in the "Everyday routine" domain – support of others in maintaining their health. These indicators were presented in the form of percentage reduction. The ICF studies health components and takes a neutral stance in relation to the etiological factors that makes it possible to investigate cause-and-effect relations as well as different determinants and risk factors triggering disability (World Health Organization, 2001). The articled carries out the statistical description of the sample using methods of primary statistical analysis due to which it determined the arithmetic mean (M) and the error of the arithmetic mean (m) of indicators and also studied the normal distribution of indicators (Babak, Bilec'kyj & Prystavka, 2001). The assessment of differences in the distribution of indicators for patients of different groups was conducted by virtue of Student's t-test and the Wilcoxon signed-rank test (Ferster & Rents, 1983). It was considered that the distribution of the samples significantly differed if p-values did not exceed 0.1. The research identifies the interrelations between indicators by means of correlation analysis (Ferster& Rents, 1983; Ayvazyan, 1974). Spearman's rank correlation coefficient was used as the assessment of dependence degree between two indicators, which the research considered significant and consequently concluded about the availability of dependence if p-values did not exceed 0.1.

Participants. It was examined 95 young people with the status of a disabled child who were under socio-medical assessment due to the matter of disability group. There were 59 men and 36 women aged 18–29. The exclusion criterion was mental illnesses, mild cognitive impairment, age over 29, and a lack of disabled child status in past medical history. The data was distributed according to age and social indicators. Taking into account age periodization of R. Gauld, D. Levinson, D.Weilant and G. S. Abramova periodization of the development of the mature personality, it was marked young adult (18 – 22 years) and adult age (22–29 years) (Kreyn, 2002; Abramova, 1999); the percentage ratio of the individuals was 60% and 40%, respectively; the average age of young adults was 19.2 ± 1.4 years and 25.1 ± 1.7 years of adults. The social indicator

concerned the fact of a medical expert conclusion: it is established the status "disabled" according to medical (impaired functions and systems) or social (assessment of disability for a period of training or employment) factor, or a disability category is denied (medical condition limits social functioning at a minimum).

Statystical data. Young people were examined based on the following disease categories (according to ICD-10): Endocrine, nutritional and metabolic diseases (E00-E90); Diseases of the nervous system (G00-G99); Diseases of the eye and adnexa (H00-H59), Diseases of the ear and mastoid process (H60-H95), Diseases of the digestive system (K00-K93), Diseases of the skin and subcutaneous tissue (L00-L99), Certain conditions originating in the perinatal period (P00-P96); Diseases of the circulatory system (I00-I99); Diseases of the respiratory system (J00-J99); Diseases of the genitourinary system (N00-N99); Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99).

The regional DDS set life activity limits for patients, who re-register disability group, in work activities (52.6%), self-care (28.4%), mobility (27.4%), training and professional training (7.4% and 6.3%) and education process (3.2%). Patients with a disability group established for the period from birth to 3 years accounted for 18.9%. 34, 7% of people contacted the Medical Assessment Board of the institute to appeal against a decision of DDS (Disability Determination Services), 45,3% re-contacted and 19,0% contacted for the first time. The structure of parent family was presented as follows: 29.8% of patients grew up in single-parent families and 6.3% – without both parents, 28.4% were the only children in the family, 66.3% lived in urban areas. Young people not engaged in social activities made up 37.9%, employed – 33.7%, people interested in work activities and studying – 37.9%. 25.3 % of patients had DDS record about pronounced manipulative attitude. According to an expert decision of the institute, 56 patients were denied a disability group, 39 persons were assigned to a disability group (15 people for medical reasons and 24 people for social reasons).

Results

The study of the degree of individual's involvement in a real situation and the implementation of behaviour focus on health saving found out certain features (table 1).

Table 1

The average values of the decrease in implementing activity and participation in the components of health saving behaviour among young people with the status of a disabled child

Social status indicators	Components of health saving behaviour in the ICF			
	Support of others in maintaining their health	Health care	Dieting and a healthy lifestyle	Health maintenance
Disabled person status based on disease factor	13,8±3,9	13,1±5,1	13,5±3,5	13,1±3,6
Disabled person status based on a social factor	19,5±6,1	11,9±3,2	20,0±3,5	14,3±3,6
Denied disabled person status	18,3±3,4	19,2±1,6	24,3±2,5	15,5±2,5

Notes. Here and in the following tables, the ICF indicators are presented in the form of % reduction. In accordance with the reduction level: 5–24% is little difficulties; 25–49% is medium difficulties.

People with a minimum disorder of functions and structures tried to keep a healthy lifestyle least of all. Patients, who were denied the status of "a disabled person", were characterized by a more expressed decline in the implementation of all components of health saving behaviour.

Analysis of the ranking of values system by age and social groups showed that the majority of young people with the status of a disabled child put health, as a priority value, in the foreground. Differences in the attitude to own health as a value depending on age development were also found out. In youth days, the value of health was more significant than among adult people ($p = 0.00002$). As for differences between patients depending on social status, 84.6% with disability status based on medical reasons put health as an important factor first, 76.2% based on social ones and 74.1% of persons who were denied a disability status. Unlike patients with the status of a "disabled person", the neglect of the health value was higher both in the group without disabilities ($p = 0.019$) and among people who have this status for social reasons ($p = 0.000003$).

The value point of health among all participants was closely associated with adequate self-esteem (0.54; p = 0.027), personal life values (0.31; p = 0.048), satisfaction with life in general (0.38; p = 0.012) and in the future (0.31; p = 0.049); had negative connections with affect rigidity (-0.33; p = 0.36), extremely high self-esteem (-0.51; p = 0.02) and physical self-image (-0.61; p = 0.028). No links with parenting were found.

Personal complexes.

Such components of self-awareness as closeness, diffidence, association of negative attitudes of others with oneself, low self-esteem, proneness to conflict, self-reproach and internal instability were mostly related to restrictions on the implementation of health care and health maintaining (table 2).

Table 2

Self-attitude and health saving behaviour

Indicators	Components of health saving behaviour in the ICF		
	Health care	Dieting and a healthy lifestyle	Health maintenance
Sociability	-0,36; p=0,001	-0,24; p=0,03	-0,39; p=0,0003
Self-confidence	-0,22; p=0,049	-	-
Looking-glass self	-0,27; p=0,016	-	-0,26, p=0,019
Proneness to conflict	0,29; p=0,008	-	0,28; p=0,011
Self-reproach	0,23; p=0,039	-	0,27; p=0,013
Self-esteem	-0,30; p=0,006	-	-0,31; p=0,004
Internal instability	0,26; p=0,017	-	0,28; p=0,01

The adequacy of self-esteem, as a significant characteristic in forming a healthy identity, negatively correlated with a decrease in health care (p = 0.01).

Anxiety transformation by a person with the formation of depressive, antisocial tendencies, difficult corrected concepts, in particular, regarding health, were closely related to a decrease in the implementation of health care and maintaining own health (table 3). Anxiety as a personality trait positively correlated with declines in the implementation of a healthy lifestyle as well as maintaining health. The low superego affected all the factors reducing the implementation of health-saving behaviour. Thus, personality traits were associated with a decrease in the implementation of maintaining health and a healthy lifestyle to a greater extent, and personality traits – with health care.

Table 3

Personal traits and health saving behaviour

Indicators	Components of health saving behaviour in the ICF		
	Health care	Dieting and a healthy lifestyle	Health maintenance
Depressiveness	-	-	0,23; p=0,035
Psychopathic disorder	0,29; p=0,009	-	-
Affect rigidity	0,36; p=0,001	-	-
Low/high super-ego (G)	-0,36, p=0,002	-0,26, p=0,017	-0,33, p=0,003
Harria/Premsia	-	-	-0,29, p=0,008
Hyperthymia / hypothymia	-	-	0,28, p=0,011
Low/high self-esteem	-	-0,24, p=0,03	-
Low/high Ego-constrain	-	-	0,26, p=0,02
Low/high anxiety	-	0,28, p=0,009	0,34, p=0,001

To a greater extent, the implementation of health care was associated with a disorder of adaptability, namely, low neuropsychic stability, moral standardisation, personal adaptation potential as well as with severe asthenic feelings and general maladaptation (table 4).

Table 4

Adaptability/maladaptation and health saving behaviour

Indicators	Component of health saving behaviour in the ICF		
	Health care	Dieting and a healthy lifestyle	Health maintenance
Neuropsychic stability	-0,30; p=0,006	-	-0,29; p=0,01
Moral standardisation	-0,30; p=0,006	-	-
Personal adaptation potential	-0,28; p=0,013	-	-
Asthenic feelings	-0,28; p=0,012	-	-
Maladaptation	-0,29; p=0,009	-	-

Axiological and time aspects

The decline in the implementation of health care and health maintenance was associated with low general satisfaction with life

(-0.41; p = 0.0001; -0.30; p = 0.005) as well as dissatisfaction with life at present (p = 0, 04) and in the future (-0.36; p = 0.001; -0.34; p = 0.002) and low satisfaction with own achievements in realizing life goals in the future (-0.24; p = 0.028; -0.29; p = 0.009).

The priority of professional values positively correlated with a decrease in the implementation of health care (0.38; p = 0.02). The priority of business and individual values also had a positive relation with a decrease in a healthy lifestyle (0.45; p = 0.005; 0.32; p = 0.044) and maintaining health (0.37; p = 0.022; 0.35; p = 0.029). The importance of the values of personal life was associated with minimum limits restrictions for the implementation of health care and a healthy lifestyle (-0.47; p = 0.003; -0.34; p = 0.036).

The factors of the negative past and the excessive perception of the fatalistic present influenced the decline in the realization of health saving behaviour. And vice versa, the reliance on the future was a factor contributing to the realization of health care and its maintenance (table 5).

Table 5

Time perspective and health saving behaviour

Indicators	Components of health saving behaviour in the ICF		
	Health care	Dieting and a healthy lifestyle	Health maintenance
Negative past	0,34; p=0,002	0,30; p=0,007	0,37; p=0,001
Fatalistic present	0,23; p=0,034	-	0,24; p=0,023
The future	-0,28; p=0,01	-	-0,26; p=0,016

In making up life plans and setting goals, health saving behavior was mainly associated with the efforts expended, possible hindrances due to the disease, as well as hindrances not related to health (table 6). The more efforts for realising life goals were invested, the less the lack of behaviour aimed at preserving health was expressed. The less a healthy lifestyle and health were maintained, the more patients needed external resources.

The study of child situation of development found out certain features. Building of a disabling character, as well as based on the type of rejection, had the most influence on the constraint of the implementation of health saving behaviour among the examined patients (table 7). The lack of skills to take care of own health was

associated with insufficient upbringing according to the type of social desirability (p = 0.035), a difficulty in the relationship between mother and child, which formed deficience behaviour in the term of control (p = 0.048), low emotional connection (p = 0.028).

Table 6

Life goals and health saving behaviour

Indicators	Components of health saving behaviour in the ICF		
	Health care	Dieting and a healthy lifestyle	Health maintenance
Invested efforts for realising life goals			
In the past	-0,32; p=0,003	-	-
At the present day	-0,22; p=0,045	-	-0,41; p=0,0001
Ideal life	-	-	-0,34; p=0,001
Disease as a hindrance in setting life goals			
For the next year	-	0,31; p=0,005	0,22; p=0,048
For the next 5 years	-	0,26; p=0,019	-
Hindrances not related to health in setting life goals			
For the entire life	-	0,29; p=0,007	0,23; p=0,037
Resources required	-	0,23; p=0,035	0,27; p=0,012

The previous social situation of development.

Table 7

Parent upbringing and health saving behaviour

Indicators	Components of health saving behaviour in the ICF		
	Health care	Dieting and a healthy lifestyle	Health maintenance
Parent-child relationships			
Rejection	0,31; p=0,004	-	-
Social desirability	-0,23; p=0,035	-	-
Disability	0,34; p=0,002	0,28; p=0,009	0,27; p=0,013
Interpersonal interaction			
Need for affect	-0,24; p=0,028	-	-0,31; p=0,005
Control deficit	0,54; p=0,048	-	-

Help to others in maintaining health was associated with sociability (-0.26; p = 0.017), spent efforts for realising goals in the past (-0.22; p = 0.048) and a socially excessive type of interpersonal interaction (0.57; p = 0,001).

Discussion

The research studies out that health is quite significant value in lives of young people with the status of a disabled child but to a lesser extent than among healthy people of the same age group (Ierusalimceva, 2012). During the conversation, each of them differently understood the essence of health, ways of maintaining and caring for it, as well as a healthy lifestyle. But nevertheless, their health saving as an activity was difficult for them from mild to a moderate degree, and in some cases–intense.

The study found out that the decrease in the implementation of dynamic actions to preserve the health of young people with the status of a disabled child is primarily determined by personal complexes: personality traits and characteristics, adaptability and self-relation.

Personal traits and related particularities of anxiety transformation, which cause difficulty in health-saving behaviour, are represented by 4 positions.

1. *Susceptibility to feelings*, the protest against social norms and rules, with possible antisocial inclinations, focus exclusively on own desires and intentions, internal discontinuity and incomplete self-concept, and non-acceptance of control from outside were intensified by depressive tendencies and manipulative attitudes ($p = 0.033$).

2. *Difficulties in adapting to others*, disorder of activity due to a high level of personal anxiety were amplified by depressive tendencies and rigid attitudes ($p = 0.001$).

3. *Lack of self-confidence*, hypersensitivity to the emotional states of the surrounding people in addition to guilt feeling and high ego-tension along with irritability and lack of understanding of the order were aggravated by depressive tendencies, rigid attitudes, psychopathic disorder and manipulative attitudes ($p = 0.000002$).

4. *Low sensitivity*, neglect of bodily needs and obvious practicality combining with manipulative attitudes ($p = 0.001$).

Adaptability is the second significant personal factor. Developed behavioural regulation and high neuropsychic and emotional stability, acceptance of social norms and rules, adequate self-assessment in a team, adaptability to new conditions, good stress tolerance are determinants of health saving behaviour. Misbalance of these parameters, as well as the availability of maladaptations and

asthenic conditions, leads to difficulties in the implementation of health saving behaviour.

Self-attitude, as a personal complex, is a regulating factor of health saving behaviour. The determinants of health are positive emotional-value system; this is the ability to celebrate oneself who one is, be in contact with strong aspects of ego, positively think about own activity when interacting with others, and have a high level of self-esteem. However, factors, which lead to the decrease in the implementation of health saving behaviour are closeness, internal instability, a tendency to self-reproach, dissatisfaction with own capabilities, the idea that health promotion causes negative feelings of close people, availability of internal conflicts.

Axiological content and time aspect, as well as the previous social situation of development, have certain significance for health preservation of young people with the status of a disabled child.

Life satisfaction acts as a factor determining a standard of health as an opportunity to realise life plans, and focus on health is fit into the value structure of personal life. A decline in the implementation of health saving behaviour takes place in the context of priorities shift in favour of professional, individual and business values.

The efforts expended to overcome the various obstacles to the implementation of life plans and focus on the future saturated with a variety of goals are resource ones for health preservation. At the same time, external resources are factors causing a decrease in health preservation as well as focusing on disease and non-health hindrances, rejection of own past and excessive subordination to circumstances.

The situation of child development leads to the limitation of the activity of health saving behaviour to a greater extent. Training of a disabling character has the most disease-evoking power. The atmosphere where a personality formed is full of drives for personal and social failure. There is a barrier against difficulties and total control of actions, a constant reminder of failure, inability and childishness. In the future, this is manifested in the form of manipulative or deficit adjustive behaviour. Disallowance of future child success also acts as restrictive parental behaviour that impedes his/her activity and participation in health care. Passive hostility and reluctance to take the responsibility formed in the process of

upbringing with a lack of control disrupt the activity in terms of health care. Upbringing according to the type of social desirability, the satisfied need for early attachment to the mother, on the contrary, contribute to the development of an active position in health care. In the future, it forms a recourse type of attitude.

Comprehension of health saving behaviour among young people, with chronic diseases and disability, is impossible relying exclusively upon the psychological components of health. Below there is a model where the value of health and its psychological determinants act as aspects of both health and disease.

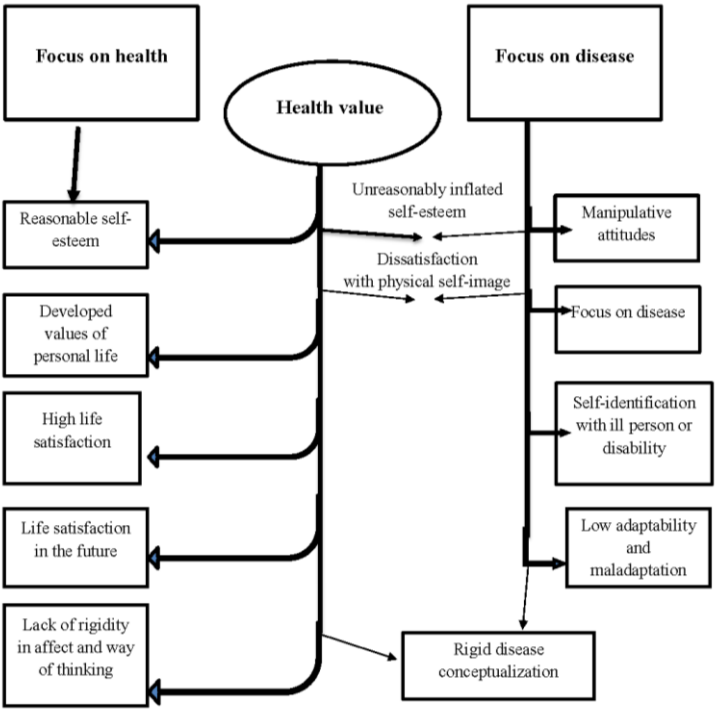

Fig. 1. Health value in the structure of motivating focus among young people with the status of a disabled child

Life activity in the disease is not just a motivator but also a trigger in forming a motivational focus both on health and disease. At the same time, aspects of identity formation and personal rendering of anxiety according to a rigid way are psychological factors of both health and disease. An unreasonably inflated self-esteem is consistent with manipulative attitudes, and dissatisfaction with physical self-image – with a concentration on the disease.

In the structure of the life perspective of young people whose development was formed in a disability situation (Drozdova & Hramcova, 2018), health preservation and its psychological components can be considered as components of the structures "I am a personality" and "I am a family member". Health value is a vector of the implementation.

Within the framework of the author's model of (and its theoretical substantiation) the socio-psychological factors of development focus of the life perspective of young people with the status of a disabled child, an active attitude towards own health and the implementation of health saving behaviour compose its productive orientation.

Conclusions

Summing up, the following features inherent to young people who have the status of a disabled child can be identified.

Bringing up according to the type of disability mainly forms the manipulative or deficit type of attitude. Social desirability and affective saturation is the resource type of affiliation. Socially excessive interaction alongside conflicting requirements is the supportive type of attitude.

But nevertheless, health saving behaviour is affected by the factors of a social situation of the development: in the youth, they are mainly determined by parent-child upbringing and interaction, and at a young age – by the topical situation of development related to social and economic support.

Insufficient motivation in the context of low anxiety is a predictor of future difficulties in the implementation of behaviour aimed at keeping health and maintaining a healthy lifestyle.

Value-based component of health is formed in the later ontogenesis; for this reason, it is not associated with parental attitudes and upbringing style.

Decrease of activity and participation in the implementation of health saving behaviour among young people, who have been assigned a disability group due to the social factor and are seeking to prolong its term later, is prognostic unfavourable. These people have an extremely high probability of forming behaviour aimed at deteriorating their condition and preferring economic support to health value.

Thus, the determinants of health-saving behaviour of young people with the status of a disabled child are the lack of guilt and personality accentuation, adequate anxiety transformation, emotional stability, positive emotional-value system, positive attitude to own activities, high level of adaptability, adequate self-esteem, acceptance of self-image, axiological content of health in the structure of values of personal life, a positive assessment of their own efforts, focus on the future, the resource type of attitude formed parental upbringing according to the type of social desirability, satisfied need for in the early attachment to the mother. The level of life satisfaction serves as a marker of health perception.

Summary

Significant relations of an individual with the outside world are the formative aspect and determine the attitude to own health, which is formed in his/her youth days. The quality of these relationships determines the influence of external factors as destabilizing or promoting health protection. A special situation of social development, as well the ambiguity of the influence of others, of young people with chronic disabling pathology are targets for the study of psychological factors focused on the health and disease of these individuals. The *goal of the paper* is to study the psychological determinants of health saving behaviour, its disorders in the structure of the life prospects of young people with the status of a disabled child. It is applied the *methods* of analysis of medical records, empirical and mathematical ones. The author investigates personal complexes, axiological, time aspects, previous social situation of development, and structure of interrelations with limits in the implementation of health saving behaviour. 95 patients aged 18–29 with the status of a disabled child were examined. There are age (youth and early adulthood) and social (status “disabled person”

according to medical or social grounds, disability category denial) indicators. *Results*. Persons with minimum disorders of functions and structures have more pronounced declines in the implementation of health saving behaviour. The value of health is more important for people with disabilities for medical reasons. The value essence of health is associated with adequate self-esteem, personal life values, life satisfaction, and the lack of rigid attitudes. The value of health and its psychological determinants are aspects of both health and disease. It is marked personal determinants of disorders of implementation of health saving behaviour: susceptibility to feelings, difficulties in adapting to others, lack of self-confidence, low sensitivity.

The determinants of health-saving behaviour of young people with the status of a disabled child are the lack of guilt and personality accentuation, adequate anxiety transformation, emotional stability, positive self-attitude and attitude to own activities, developed adaptability, adequate self-esteem, acceptance of self-image , axiological content of health in the structure of values of personal life, a positive assessment of their own efforts, focus on the future, the resource type of attitude formed parental upbringing according to the type of social desirability, satisfied need for in the early attachment to the mother. The level of life satisfaction serves as a marker of health perception.

Health saving behaviour is affected by the factors of a social situation of the development: in the youth, they are mainly determined by parent-child upbringing and interaction, and at a young age – by the topical situation of development related to social and economic support.

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Consequences of the lack of focus on the aetiology of mental disorders in the psychiatric perspective of mental health

Introduction

The current understanding of mental disorder is defined by two main diagnostic manuals, the DSM (Diagnostic and Statistical Manual of Mental Disorders) and the ICD (International Classification of Diseases). The first of these is issued by the APA (American Psychiatric Association), and the second is issued by the WHO (World Health Organization). The definition of mental disorder according to the DSM 4 had left much to be desired. In general, apart from broad wording, the DSM 4 did not explain the essence of the issue (Thyer, 2015). The DSM 5 is slightly more specific, but the conceptualisation of mental disorder is still criticised by scholars in the field (Thyer, 2015; Stein et al., 2010). The DSM 5 defines the problem in a very general way, using broad meanings and repetitive synonyms to explain the concept. The ICD-10 states that it is difficult to clearly categorise the phenomenon of mental disorder and that it is dependent on many contexts and perspectives. The approach of the ICD-10 makes it even more unclear in how to understand the term "mental disorder". The inability to create a clear concept is somewhat paradoxical, considering the fact that the definition appears in the two most important diagnostic manuals in the world. It seems, however, that the problem not only stems from the ordinary proficiency of wording but also goes a little deeper and refers to the philosophy of understanding the phenomenon of mental disorder. The purpose of this article is to critically evaluate the contemporary diagnostic methodology, which is monopolised by the medical worldview and represented by psychiatric perspectives, and to propose an alternative solution to the problem of understanding and dealing with mental health.

Medical understanding of mental disorder

Inaccuracy and shortcomings in the definition of mental disorder seemingly have no significant meaning and gives the impression of being a small piece of the large amount of information available in the DSM or the ICD. However, how the concept of mental disorder is understood determines the relationship and perspective of how health and illness are assessed. A significant part of the definition by the DSM 5, especially its second part, is devoted to social aspects as a reference point, which by nature varies and is dependent on cultural times and context. Social aspects are also subjective, where the majority of a society determines or has a significant impact on norms. In this situation, there is a controversy because what if the majority is or could be affected by a mental disorder? What if the majority thinks something is or is not a disorder? Should it be considered that the majority is infallible? Another question that arises is whether it is appropriate to include sociological aspects in defining health criteria in the field of psychology in general, and if so, to what extent? Another issue that seems to be significant is the fact that including sociological aspects in the psychological definition makes the understanding of mental health relative and subjective. This understanding of health, in turn, shifts the burden of a scientific concept towards opinion and worldview, which does not align with scientific evidence and facts. The above issues seem to be very important and should be carefully considered when talking about such important matters as mental health and the criteria for its evaluation.

Both diagnostic manuals, i.e., the DSM and the ICD, represent the same diagnostic tradition, namely, psychiatric, which derives from medicine. The methodical framework in the medical approach to health is generally categorical. In this context, the understanding of health is zero to one, i.e., that you are healthy or sick. The diagnosis does not consider the linear status to be between one and the other. While diagnosis has practical applications in medical settings, it does not necessarily work in psychology and mental health. For example, according to the DSM, 5 of the 9 determined symptoms of depression are required to diagnose the disorder. The fulfilment of only four criteria is defined as the absence of depression. Rationally speaking, however, the difference between the presence of 4 and

5 symptoms is very small, which is interpreted differently by the DSM. In practice, it causes people who do not have severe mental disorders to be diagnosed as not ill, which is not necessarily true and can be harmful or even dangerous for patients. Differences between the DSM and the ICD, in regard to diagnostic criteria, occur at the level of verbal construction and the formulation of meanings rather than the fundamental differences in the meaning of a given disorder. In general, the DSM and the ICD are complementary rather than representing a different approach to mental health or differing significantly in terms of concepts. Currently, on the mental health market, there is no alternative that would effectively balance the dominance of medical and psychiatric principles formalised by the DSM and the ICD.

Psychological and psychotherapeutic direction in understanding mental disorder

The psychological and psychotherapeutic approach is a diagnostic alternative, which seems to be rarely known or undermined. One of its factions is the proposal of humanistic therapy, which was created by Carl Rogers and states that the burden of diagnosis and treatment is transferred to the patient (Rowe, 1996; Rogers, 1977). This theory is based on an intuitive self-actualising tendency, which is able, with therapeutic assistance, to carry the patient from a state of mental dysfunction to a state of integrated functioning. Thus, it is not necessary to define the framework and name the problem in a manner that is characteristic of psychiatry. This approach, however, seems to be extreme opposition when compared to what is preferred by the DSM and the ICD. Taking into account that Person Centred Therapy is very poorly supported by empirical evidence, it does not seem that it will be able to dominate the clinical practice market in the near future.

Cognitive behavioural therapy (CBT) and the therapeutic tradition proposes an alternative that is more appealing from an empirical perspective and seems to have great potential. In CBT, the identification of a mental issue takes place in a case conceptualisation (or formulation) process. This approach goes beyond the diagnostic criteria proposed by psychiatry and medicine

and considers a cross-sectional approach to mental disorders (Dudley et al., 2011). Although this approach is sticking to and is consistent with diagnostic diagrams, it moves towards the perception of the phenomenon of mental disorder individually, taking into account the individual context of the patient. This approach also abandons the categorical perception of mental disorder in favour of a linear perception in which the difference is visible but fluid instead of categorised.

Case conceptualisation represents deeper approach to the problem, which respects psychological assessment and is adapted to the needs of psychotherapy. Namely, case formulation assumes an additional element that is omitted or very poorly articulated by the diagnostic manuals. It is attention to the causes of the problem and the mechanism driving the diagnostic symptoms. Psychological aetiology fundamentally changes the diagnostic perspective and avoids the very dangerous, phenomenon of relativism in psychology. Some unclear aspects of mental health would become clearer after turning attention to the aetiology of the problem. In this way, the path to the possibility of manipulating psychological phenomena and concepts becomes more limited, where diagnosis could desert the domain of facts and science. As scientists, we could be at risk of falling into a barren discourse based on worldviews that have little to do with scientific argument. The history knows that some mental health concepts are changed or removed for social reasons (Drescher, 2015; Spitzer, 1981). Insight into the aetiology of the disease phenomenon would also provide a good opportunity to decide whether the disease belongs to the field of mental health or is a somatic disease, as many of the diseases have both types of symptoms. For example, Alzheimer's and Down's syndrome certainly belong to both fields. The causative element, however, provides a clear explanation that the first is caused by somatic brain atrophy and that the second is a genetic disorder. In this case, it is clear that we are dealing with somatic diseases. In turn, stress is often the cause of problems with the circulatory system, insomnia or cancer. Knowing their causes, it is easier to organise and plan a treatment strategy, where the treatment of only somatic symptoms is obviously not very effective in a long-term perspective (Janowski et al., 2014).

Perspectives of treatment

The dominance of the psychiatric perspective in the domain of mental health has its influence on the approach to the treatment of mental disorders. Since the disorder is identified only with symptoms, the treatment consists of removing only the effects of the problem, without the need to cure the causes. The consequence of this understanding of mental health is the use of pharmacological means to remove the symptoms of the disease, which may reappear when medication is discontinued. Another risk is the possibility of patients becoming addicted to medications that are treating the symptoms of the disease while the disease itself remains unresolved. At this point, the question arises whether this approach is fair and perhaps even ethical to the patient.

The psychotherapeutic approach offers another element to the concept of mental health, which is a reference and orientation towards solving the problem through addressing the causative component as well or first of all. By observing the symptoms and knowing the causes in the complex mechanisms of the disorder, it is possible to determine better treatment strategies and reduce the negative effects of the disorder in a long-term perspective (Tarrier & Johnson, 2015).

It is a pity that among the main diagnostic manuals, the medical tradition is very well represented, and the psychotherapeutic one is significantly underrepresented or even not represented at all. The presence of a psychological manual that captures a mental disorder from symptomatic and causal perspectives would be a significant contribution to psychotherapy and provide a healthy balance for understanding mental disorders. This lack has negative consequences not as much for the diagnosis itself as for the effectiveness of the treatment, which is one-sided and consists of focus towards removing the symptoms and not the cause of the symptoms. It seems that contemporary psychology has been very susceptible to the creation of symptomatic concepts, abandoning somewhat the causal understanding in the clinical context that formed the essence of the scientific discipline at its beginning. One of the reasons for this direction is the empirical preference in the development of psychology, which creates new diagrams, diagnostic concepts and

criteria but perhaps neglects the causal understanding of phenomena, which may lead to dangerous relativism in the sense of health.

Conclusion

The field of mental health and the issues of diagnosis and treatment revolves around the context of medical tradition represented by the psychiatric perspective, regularly updated in the DSM and the ICD diagnostic manuals. Another perspective on mental health exists and could be very valuable contribution to the field of mental health if it was popularised. It would make a significant input for development of psychotherapy and clinical psychology and be strong alternative for treatment of mental disorders. To make that happen, a complete manual would need to be developed and the empirical evidence supporting the effectiveness of comprehensive treatment provided. This lack leads to a situation of a monopoly, stimulating development of pharmacological treatment and restraining the field of clinical psychology and psychotherapy preferring non-pharmacological management of mental health issues. Promotion of psychotherapeutic concepts of mental disfunctions could create healthy competition and stimulate the development of the entire field of mental health. It may have a positive impact not only on psychological and psychotherapeutic disciplines but also on psychiatry and medicine. The nature of psychic phenomena belongs to the domain of latent reality, and it is desirable for it to also be developed by disciplines that have experience and long tradition in studying it.

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Perception of time by people in late adulthood. Maturity

Introduction

The constantly increasing number of people over 60 years old in European countries, including Poland, with a simultaneously decreasing number of young people leads to reflection on factors that are conducive to the physical and mental health of seniors. According to numerous studies, the temporal perspective has a significant impact on human functioning. The article presents the results of research carried out among the elderly. Attempts were made to determine whether the perceptions of past, present and future are affected by the factors such as: death of a spouse, participation in religious practices, living in a current apartment.

According to the demographic forecast, by 2050 the Polish population will decrease by over 4 million. At the same time, the demographic structure of Polish society may change. It is connected with a decreasing birth rate on the one hand and the longer life of Poles on the other hand. As a result, the number of retired people will increase significantly soon.

In 1995 it was estimated that 60-year-old men will live 75.8 years and women 80.5. In 2005 the life expectancy of men aged 60 was projected at 77.5 years, and women at 82.7 years. In 2017, the life expectancy of 60-year-old men was projected at 79.2 years and women at 84.3 years. Both the average age of Poles and the number of people in post-working age are increasing. In 2005 it amounted to 5,885 thousand and it is expected to increase to 8,540 thousand in 2020 (in 2030 to 9,597 thousand). Women in post-working age predominate due to both early retirement and longer life (Statistical Yearbook of the Central Statistical Office, 2004, 2018).

It is extremely important to remember that people who retire should remain active by developing their interests and passions for which they did not have time before, maintain social relations with a group of friends and acquaintances, and remain in close relationship

with family, especially young people to whom they can pass on the traditions cultivated by their families, the community in which they live or the country of which they are citizens. They cannot live the past, regardless of whether it was good or bad in their memories, but they must live in the present and future reality.

The research presented in this study was aimed at determining how people aged 60+ perceive the time and what factors affect the way of its perceiving.

Characteristics of late adulthood

The period of old age, currently named as third age or late adulthood or adulthood, is a time when a person who is still both physically and mentally active as well as professionally and socially active gradually falls out of his roles and slowly loses strength. However, there is no such moment in the development of the body, which could define the beginning of old age. Nowadays, especially in industrialized countries, people are living longer thanks to development of medicine and the improvement of living conditions, therefore the old age begins later than before.

In ancient Greece, Pythagoreans assumed that age of 60 is the beginning of the old age whereas Chinese philosophers believed that it was 70 years (Rembowski, 1984, p. 41). Birren, adopting various criteria for the periodisation of human life, including anatomical, physiological, psychological and social defined the period of late adulthood as 50-75 years, and the old age from 75 years (quoted after Rembowski, 1984, s. 42).

According to Okła, the «quality of life» in the old age does not depend, however, on the biological condition of the body, but on the arrangement of personality traits and the social context in which people find themselves (Kurtyka-Chałas, 2014, s. 41). A high sense of «quality of life» is given by a social activity adequate to people's abilities, having friends, family contacts, the opportunity to meet emotional needs, developing interests, etc.

According to Havighurst's theory, people face various tasks that they have to solve at every stage of life. In the stage of late maturity, a person must adapt to a decline in physical strength, retirement and reduced income. He must also accept the death of his spouse,

maintain social relations with people of his age, accept and adapt to changed social roles and arrange the conditions of living in a convenient way (Przetacznik, Gierowska, Tyszka, 1996, s. 69).

According to Braun-Gałkowska losing the ability to act and perform various roles that people had before retiring may be sometimes experienced by them very hard and can cause a dual response. One of them can be a complete withdrawal of life and resignation from activity explained by lack of strength, lack of the ability to influence the course of events, or even the feeling that the person is not needed anymore. The second reaction, also unfavorable, is to preserve the previous way of life despite changes in abilities (Braun-Gałkowska, 1987, s. 185).

Many gerontologists stress the importance of socializing for seniors. Unfortunately, people met in their youth or adulthood pass away over time, and the number of family members decreases. The decrease in the number of contacts with friends and acquaintances may, however, result in a deeper bond with a spouse or a long-term partner, as well as with the young generation.

Unfortunately, withdrawal from life is often favored by the attitude of the environment, especially young people who value youth, health, fun and money most. There are cases when they insult old people in a vulgar way by saying «when I see such a woman, I would shoot her in the back», «into the oven with old people,» tell me why she is still alive» etc. (quoted from Krzemińska, 1980, s. 54). Wiśniewska-Roszkowska who summed up the book of Simone de Beauvoir, describes a grim picture of old people presented by this novelist. Old people may not be hungry or scrawny, but they often may feel spiritual hunger, lack of affection and kindness. They are ridiculed and humiliated. They feel «thrown overboard». They are not respected, loved and therefore happy (Wiśniewska-Roszkowska 1989, s. 35).

In their youth, people set life goals and create plans that they try to achieve in adulthood. In the old age, however, they make a balance of life. If this balance is positive, if they managed to achieve the goals they set for themselves in their youth, they may feel fulfilled. But if they come to the conclusion that they have not done anything valuable in life, that their life was basically empty, meaningless, or when they experienced only defeats, they may feel

overwhelmed by apathy and try to blame others for their unsuccessful life.

When Holmes and his group of colleagues worked on the theory of stress, they tried to find out which life situations cause the average and the strongest stress in an adult life on the basis of interviews. Many such situations were mentioned, e.g. loss of job, change of flat, loss of property, but the decisive majority of the respondents considered the death of their spouse as the strongest stress (Zimbardo, Ruch, 1988, p. 363).

Holms's theory combining stress with a particular difficult situation has not resisted criticism, but the loss of a spouse, according to the commonly accepted concept of stress by Lazarus and Folkman (Heszen–Niejodek, 2011) assumes that when a widowed person is unable to cope with this loss he always experiences strong stress. The level of the stress depends on many factors.

The strength of stress and the period of mourning depends on the sex and age of the widowed person, the relationship they had with the deceased spouse, as well as the activity he must take after his death

For a person who has children, who works professionally or who has a group of devoted friends, losing a spouse is a blow. It causes sadness, regret, harm, sometimes guilt, but after a period of a mourning that person comes back to life and to normal functioning. Such a situation is more difficult for people, whose children have left home, who are no longer working professionally, who do not have a group of friends who in difficult times would be a support for them. Usually, being with the other person for good and for bad, sharing joys and sorrows with him as well as caring for him was the meaning of live. The death of a spouse divides life into two categories: before and after his death. The «before» can often be idealized, whereas the «after» can be perceived as sad, empty, or even tragic.

If the bond between the widowed person and a spouse was not very positive and a long-term care as well as participation in his slow dying exhausting, death can be interpreted as a release from a difficult situation, an opening to new experiences as well as an opportunity to make dreams come true.

Psychological time

In recent years, the interest in time among psychologists has clearly increased. Time as a phenomenon is known to everyone as life goes on in it, but it is experienced differently by various people. A temporal psychology deals with time understood as time experienced by a man. According to Sobol-Kwapińska, there are many definitions of time. One of them was presented by Fraisser where time is interpreted as series of changes, which exist only as a mental representation except for present; memory trail or anticipation (Sobol-Kwapińska, 2011).

According to Nosal who is one of the main representatives of temporal psychology in Poland, time is considered as a special form of information and mental models which organize it. They are cognitive structures integrating various conceptual categories – dimensions of time representation and attitudes towards time (Nosal, Bajcar, 2004).

Zimbardo and Boyd believe that «the perspective of perceiving time is a personal attitude – often unconscious, which each of us manifests in relation to time. It is also a process in which the continuous flow of life is divided into time categories, helping to give our life order, coherence and meaning" (Zimbardo, Boyd, 2014, s. 24).

In psychology, the subjective relation of man to time is called a temporal dimension of personality. There are three types temporal orientation: future-oriented (prospective), present and past (retrospective). Specific types of temporal orientation are associated with specific behaviours and attitudes towards life (Sobol, Oleś, 2002). According to Oleś, if the temporal perspective is distant, a man has time to start implementing new activities, acquire new competences, develop skills. But if the temporal perspective is short, as well as life and its balance seems precised and little can be changed, previous experience is gaining significance (Oleś, 2011). The results of some studies show that generally people, regardless of age, think more about the future than about the past, but many studies also show, that older people are more focused on the past than the future, in contrast to young people who, on the contrary,

turn more often to the future than to the past (see Sobol-Kwapińska, 2011).

As noted by Zimbardo, the author well known in Poland for his interesting social experiments, but less of the concept of the impact of time perception on human functioning, a happy person who has good interpersonal contacts, who is open to new experiences, is a man living in the present, but not cutting himself off from the future and not fleeing thought the future.

The past can be perceived as a series of positive experiences or as a series of misfortunes, regardless of what it really was. To function efficiently psychophysically, you cannot completely cut off from the past, but you cannot only live it.

People who live only with positive past time like to plunge themselves into pleasant memories longing for what was already there. The present reality is interpreted by the past experiences. They are optimistic about life, but the present and future are of little interest to them.

People who live in the negative past treat their whole life as a one big failure. They no longer remember what was interesting and happy in their live, but they still remember harm they have suffered from others, and the failures they have experienced. They see the world as unpredictable, and other people as indifferent, unkind, envious. They often see the present fatalistically and they avoid making plans for the future.

For most people, the most important is the perspective of the present and future tense. However, it can be stated that people with a positive baggage of past experience are open to new experiences, have a sense of agency, believe in themselves, do not feel fear of new tasks, have satisfying contacts with family and a group of friends, they make plans for the future, they are happy with life and themselves.

For people who have a negative past, the present tense has, as mentioned above, often a fatalistic dimension. Since they have failed in the past, they lack faith that they can succeed in the present or in the future. They are superficial, impatient, distrustful, inactive, closed to new experiences, often focusing on their ailments which may be sometimes exaggerated.

According to Zimbardo, there is also one extra category of present-day hedonists who do not care about the past as well as they do not look into the future. They live only the present moment. They are characterized by their desire for pleasure which is why they are looking for exciting activities that will provide them with this pleasure. They like fun and cheerful and people who are trouble-free. They do not like routine and duties (Zimbardo, Boyd, 2014).

To help people to improve their psychophysical functioning, especially people stuck in the negative past, Zimbardo developed the Time Perception Questionnaire. It allows to determine the time perspective adopted by the respondent and as well as a therapy which depends on the results obtained.

Research methodology

The research was undertaken to determine how Poles perceive time and on what factors this perception depends. The study included people aged between 19 and 60. A group of high school graduates, students, people aged 26-35 (residing in Poland and England) as well as 35-59 and people aged over 60 were examined.

The results presented in this study are related to people in the retirement age. It is essential to understand factors which influence elderly's perception of time (present and future) as it is assumed that the number of people over 6o who – according to predictions – can live at least a dozen years, is increasing.

Research Method

In the study a Zimbardo's Time Perception Questionnaire in the Polish experimental adaptation of Przepiórka was used. It included minor changes of the original version of the Zimbardo Questionnaire. The questionnaire consists of 5 subscales – perceptions of negative and positive past tense, hedonistic and fatalistic present tense and future tense. The author also highlighted the transcendental future, but it was not included in the questionnaire.

Ideal results reflecting good mental health, sense of happiness and satisfaction with life are obtained by people achieving low results in the perception of negative past tense and fatalistic present tense as well as high results in the perception of positive past tense and slightly above average perception of hedonistic and future tense.

In addition, the respondents answered the questions included in the Questionnaire of Life Attitudes by Klamut (Klamut, 2002) and the questions of the survey.

Characteristics of respondents

There were 66 women and 25 men among the respondents. The group of women was divided into a group of 30 widows and 27 non-widows, mostly married (for 9 women there was no data on their marital status). The age of the examined women ranged from 61 to 87 years. Among widowed women there were slightly more older women. The average age of widows was 75.8 and the other women 73.4. The age of men was between 63 and 88 years old. The age distribution of the studied women is presented in tab. 1.

Tab. 1

Age of women

Age	Widows N=30		Non-widows N=27		Total
	N	%	N	%	%
61-65	1	3,3	8	29,7	15,8
66-70	8	26,7	10	37,0	31,6
71-75	6	20,0	7	25,9	22,8
76 – 80	8	26,7	2	7,4	17,5
81-85	5	16,7	-	-	8,8
86 and more	2	6,6	-	-	3,5
Total	30	100	27	100	100
	Average age =75.8			Average age = 73.4	

Research results

At the current stage of the study it is impossible to define whether age affects time perception as the group of respondents over 60 years old was insufficient. However, Zimbardo's studies show that present fatalism is negatively correlated with age.

Marital status is one of the variables that can affect time perception, therefore it was checked whether time perception differentiates widowed women and non-widowed women. The results obtained in particular subscales of the Questionnaire are ranged from 1 to 5 points. Table 2 presents means and standard deviations obtained by the examined groups of women.

Tab. 2

Mean and standard deviation of widowed women and non-widowed women

Time perception	Widows N=30		Non-widows N=27		t	*p*
	X	SD	X	SD		
Negative past time	3,33	0,75	2,77	0,94	3,29	$p<0,05$
Positive past time	3,50	0,68	3,36	0,48	-	$p>0,5$
Present hedonistic time	3,00	0,72	3,00	0,72	-	$p>0,5$.
Present fatalistic time	3,11	0,59	2,72	0,90	3,25	$p<0,05$
Future time	3,42	0,41	3,43	0,45l	-	$p>0,5$.

The results show that the perception of negative past and present fatalistic tenses significantly differentiate widowed women and not widowed ones. Widows have a much worse perception of the past – perhaps due to the loss of a spouse, excessive burden of responsibilities related to raising children and work or a lack of support from the nearest person who is most often a spouse. Statistically significant differences were also found in the perception of the present fatalistic tense. Widowed people, who often have been left alone after becoming independent, have finished their professional life in a more fatalistic way than people who have not lost their life partner. As P. and J. Chauchard stated, «it is not good to grow old alone, although this solution is easier, because the old age often intensifies the lack of communication which is connected with human nature. Dialogue and authentic communication are a must in life...» (Chauchard, 1977, s. 174).

Comparing the results obtained by all the surveyed women with «ideal» results presented by Zimbardo it can be stated that they deviate from the ideal ones. The greatest differences occur in the perception of the present fatalistic tense as well as negative and positive past tenses.

Due to the insufficient number of widowed men the results obtained were not compared with those of married or divorced men.

Among the women who were not widows, the lowest results in the negative past tense perception subscale (x=1.3) were obtained by a not married woman aged 68 with a university degree and a doctorate, still working professionally. She is a positive person and full of plans for the future. As a manager of the university team she constantly comes out with new ideas. She has self-esteem and

believes that what happens to her is due to her work and skills. She has a strong bond with the family whom she is constantly helping not only financially, but also by dealing with many difficult matters. She also helps many other people. Thinking about the past, she returns to positive experiences which she gladly recalls among friends. She is an agnostic but he respects believers.

Among the group of widows, the highest results in the negative time perception subscale (x=4.1) were obtained by two examined women. One of them, 72, with secondary education became a widow at the age of 30. She worked for 40 years until she retired. After the death of her husband she had to take care of her own children. She does not have close friends. She has never been involved in any non-professional activities. She lives alone although she maintains contact with children and grandchildren whom she supports financially. However, she believes that the family, especially grandchildren, keep in touch with her mainly because she shares her pension with them. She spends her time talking to her neighbours. She goes to the cinema sometimes. She considers herself as a believer, but not a practitioner. She assesses her current life as sad and difficult, without joy.

The second woman who also obtained very high results in the negative past tense perception subscale is a woman aged 63, with vocational education. She's been a widow for about 20 years. She lives alone but her daughter and son visit her often. She knows that she can count on them and they can count on her in financial matters. She meets herfriends and neighbours once a month. She spends her time reading newspapers and watching TV. She has never been involved in any other activity besides work and homework. She assess her current life as filled with work and care, but also deprived of joy. She declares herself as a non-practitioner.

The study focused also on differences between women and men in perception of past, present and future time as it is widely believed that women cope better in life and they are more resistant to life difficulties.

Tab. 3

Means and standard deviations of the surveyed women and men

Time perception	Women N=66		Men N=25		T	*p<0,05*
	X	SD	X	SD		
Negative past time	3, 00	0,85	2.96	0,78	0,201	0,84
Positive past time	3,42	0,60	3,33	0,52	0,650	0,52.
Present hedonistic time	3.00	0,72	2,95	O,58	0,306	0,76
Present fatalistic time	2,9	0,75	3,12	0,69	1,252	0,21
Future time	3,42	0,41	3,36	0,57	0,539	0,59

On the basis of the results obtained it may be stated that differences in time perception among surveyed women and surveyed men over 61 years are similar and statistically insignificant. Both women and men in this age similarly perceive past, present and future tenses. It does not mean, however, that such differences do not occur among younger generations, especially among people aged 25-35 and 36-59.

The study research included also the analysis of attitude towards religion and its influence on the perception of time among women older than 61 years.

Tab. 4

Perception of time and attitude towards religion of women aged 61 and more

Time perception	Believers and practitionaires N=24		Believers and non-practitionaires N=22		Non-believers N=11		F	*p*
	M	SD	X	SD	X	SD		
Negative past time	3,1	0,68	3,3	0,79	2,8	0,82	1,638	0,204
Positive past time	3,5	0,57	3,5	0,67	3,7	0,48	0,499	0,610
Present hedonistic time	2,9	0,64	3,2	0,72	3,1	0,76	1,099	0,342
Present fatalistic time	2,9	0,62	3,4	0,76	2,5	0,82	6,333	**0,003**
Future time	3,5	0,43	3,6	0,36	3,5	0,56	0,361	0,699

A statistically significant difference was found in the perception of the present fatalistic tense between regular believers and those declaring themselves to be non-practitioners and non-believers. It turns out that faith in God and attachment to religion positively influence acceptance despite difficulties, worries and suffering which occur in life.

According to the results obtained it may be stated that having a close person to live with, involvement in professional work, or caring for grandchildren as well as following one's interests and hobbies allow elderly to enjoy life and be open to new experiences up to an old age. Satisfying contacts with family and friends, as well as faith in God and regular participation in religious practices make senior's life happier.

Inactive people who are living alone, focus usually on their current life, perceiving it mainly in the category of failure, an error that can no longer be rectified and the harm they suffered from fate and other people. They usually have reduced self-esteem and do not believe that their lives can change for the better. Moreover, they do not see the meaning of their lives.

People who have to spend their last years of life in social nursing homes are in a very difficult situation. Because of health, disability and above all due to the lack of a family that would support them, they must abandon the place where they spent most of their lives and live with strangers. What is more, they have to adjust to the regulations of the new institution. The Table 5 presents the results of perception of time by people over 60 years old living in their environment and people staying in nursing homes.

Tab. 5

Perception of time and place of residence

Time	People living outside social nursing homes N=66		People leaving in social nursing homes N=30		t	p<0,05
	X	SD	X	SD		
Negative past time	2,88	0,86	3,40	0,47	**3,073**	**0,03**
Positive past time	3,45	0,61	3,52	0,65	0,47	0,63
Present hedonistic time	2,97	0,82	3,14	0,62	0,93	0,30
Present fatalistic time	2,84	0,76	3,35	0,61	**2,06**	**0,04**
Future time	3,54	0,46	3,41	0,53	1,199	0,13

Obtained results show that perception of the negative past and present fatalistic time significantly differs people who, despite reaching retirement age are still independent or they receive such help and support from the family that they can still live in their homes, from people who decided to live in social nursing homes.

Residents of nursing homes negatively assess their current life. Moreover, they are also not satisfied with their current situation, although nursing houses provide them with housing, food, medical and rehabilitation assistance. Unfortunately, if the man wants to function well and enjoy his life, the one needs to meet other needs, which any institution can satisfy.

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Stress level, sense of coherence and self-efficacy in parents of children with autism

Introduction

The article is devoted to the parents of children with autism and contains a description of the emotional state that accompanies them every day for many years, often overwhelming their ability to cope with stress. Psychological well-being, the ability to cope with stress and the conviction that the effort they make gives positive results, as well as their deep parental love, can contribute to the fact that a child with autism will trust their parents and let them into their world. We hope that the research results will enrich the knowledge about the complexity of autism and the conclusions obtained will serve as practical tips for parents and all specialists working with children with autism. These considerations are an attempt to state that parents and specialists can do a lot to reduce the undesirable behaviour of children with autism and help them in their functioning.

The article consists of both the theoretical foundations and research. The theoretical foundations present the problems of autism and related issues such as stress, sense of coherence, self-efficacy and their specificity in parents of children with autism. The research part outlines the research methodology, analysis and interpretation of the research results and their comparison with the results of other studies. The aim of the study is to clarify the difference in stress level, sense of coherence and self-efficacy in mothers and fathers of children with autism, as well as to determine whether there is a relationship between the level of stress and sense of coherence and self-efficacy in parents of children with autism.

The participants of the study, which took place at the EEG Institute in Warsaw, as part of the ‘Let’s Help Autists’ campaign, in December 2015, January and February 2016, were the mothers and

fathers of children with autism. Having become acquainted with the purpose of the study and their rights, 62 respondents provided their basic data and completed questionnaires PSS-10, SOC-29 and GSES.

The research results show that there is a difference in the level of stress and sense of coherence in mothers and fathers of children with autism. Mothers reveal higher stress levels and a lower sense of coherence than fathers. At the same time, the study has shown no differences in self-efficacy in mothers and fathers of children with autism spectrum disorders. Research results also indicate a strong negative correlation between the level of stress and self-efficacy and sense of coherence, particularly in mothers of children with autism and parents of children with severe autistic disorders.

Conclusions: mothers of children with autism perceive their parental role as more stressful, show less understanding of the situation and feel greater helplessness over problems than fathers. It can also be stated that parents' understanding of the situation related to a child's condition, their sense of agency, evaluation of their own capabilities and resources to cope with difficulties and belief in the effectiveness of actions taken to improve the functioning of a child with autism affect their stress level.

Autism and parents of children with autism in the light of research

Autism has been the object of scientists' interest for several decades. However, its causes have still not been found and the mechanisms of its action that play a leading role in its pathogenesis have not been identified. Many issues continue to be questioned because different courses and dynamics of autism development cause disorders of different levels of complexity. Disorders associated with autism are a problem not only for patients but also for their parents who carry the main burden of the everyday fight against this disorder. When a child is diagnosed with a disability, parents experience shock, followed by a sense of guilt, regret and fear of the future. They are in a state of severe stress that can lead to burnout syndrome (Pisula, 2015b, p. 51; Gałkowski, 1995, p. 83). They often have depression. The constant struggle for the child's health takes a lot of their time and effort, makes them give up their life and professional plans and reduces their social

relationships. This serious condition is a deep emotional shock for the family. Parents accuse one another and the tensions that arise between them can lead to conflicts and the breakup of their marriage.

Without any doubt, having a child with autism and being aware of the long-term perspective of childcare causes a lot of stress for parents. Currently, there is little research on the problems of mothers and fathers related to raising and caring for a child with autism. Differences in the level and quality of stress experienced by mothers and fathers are still not quite clear and well defined, and research results are not consistent. Figure 1 demonstrates a model of the functioning of parents of children with autism in the context of the stress they experience, modified by a sense of coherence and self-efficacy.

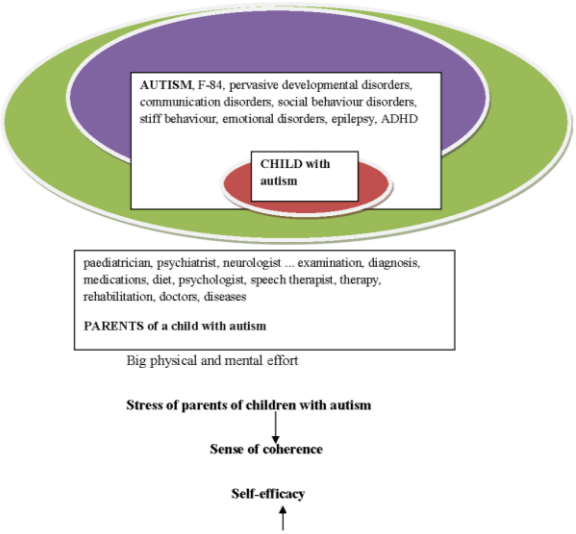

Fig. 1. Model of the functioning of parents of children with autism

Source: own study

Carers of children with autism function in a variety of ways. Researchers believe that the state of diverse cognitive, motivational and emotional functioning of parents of children with autism can be explained by the fact that they differ in their sense of coherence and

self-efficacy. Being the most important resources, these affect their motivation to act and make an effort as well as their persistence in pursuing a goal (Kościelak, 2010, p. 62) and the ability to cope with difficult health-affecting life situations. A study conducted by Ewa Pisula (2015b, p. 79) shows that mothers experience the birth of a child with autism more emotionally and feel more stress compared to fathers. Psychologist Emy Liwag (Randall and Parker, 2010, pp. 45–46) from an Australian university claims that mothers and fathers experience the stress of having a child with autism differently. While mothers are more worried about their child's bouts of humour, hyperactivity and speech disorders, fathers are more stressed by the fact that autism is an incurable condition and that the child will need help throughout their life.

Currently, not many studies concern the level of coherence in mothers and fathers of children with autism. The results of those carried out show that parents of children with autism have a lower level of coherence than parents of healthy children or with other developmental disorders. The reasons for this are very important. Undoubtedly, caring for children with autism requires parents to experience changes to their life course, value system, perception of the environment and prevents them from fulfilling their own plans and needs. Due to a lack of competence and the skills for caring for a child with autism, as well as the negligible results of therapy, rehabilitation and low progress in the mentee's development, parents experience a high level of stress, which negatively affects their sense of coherence and the process of adaptation.

Research results show that self-efficacy affects the physical and mental state of an individual. It turns out that this variable has an effect on blood pressure and the level of catecholamines, such as adrenaline, noradrenaline and dopamine, which are important neurotransmitters secreted by the human body in stressful and anxious situations (Schwarzer, 1997; Bandura et al., 1985). It is believed that self-efficacy arises from one's own experiences, affects emotions and is a motivational factor. A high sense of self-efficacy affects the creation of positive emotions that are helpful in coping with stress and assessing cognitive resources: a sense of agency, finding the right solution and the inner locus of control.

It is believed that stress is an important factor affecting many aspects of human behaviour, strategy selection and self-efficacy that influence the assessment of an individual's resources in difficult situations. Research results have shown that a low sense of self-efficacy in parents of children with disabilities is associated with higher levels of parental stress (Hastings and Brown, 2002; Kuhn and Carter, 2006). A strong sense of self-efficacy reduces the level of stress felt by parents of children with disabilities, which is the group most at risk of functioning disorders, helps caregivers to cope with difficulties related to childcare, makes it easier to find the right solution and can protect against burnout. The results of research conducted by Małgorzata Sekułowicz (2013, pp. 162–164), who studied the relationship between self-efficacy and the level of burnout, indicates a medium level of self-efficacy in all groups of respondents.

Stress level, sense of coherence and self-efficacy in parents of children with autism in light of the authors' study

Research conducted so far has searched for the causes of stress and difficulties in the functioning of parents related to proper childcare. The results of these studies are of great importance for analysing the functioning of the family of a child with a disability in light of the specificity of the stress experienced by parents of children with autism consisting of discrepancies between the tasks set before caregivers and their ability to cope with them. However, there is little research aimed at assessing the level of stress modified by a sense of coherence and self-efficacy as important resources for an individual. A sense of coherence and self-efficacy in parents of children with an autism spectrum disorder can be important factors affecting differences in the functioning of mothers and fathers and the perception of parental competence. On the other hand, more studies are devoted to parents of chronically ill children than to parents of children with serious developmental abnormalities. Research results can help specialists in their practical activities aimed at helping and supporting families of children with disabilities.

The above-mentioned assumptions were the starting point for formulating the following research questions:

1. What is the stress level in mothers and fathers of children with autism?
2. What is a sense of coherence in mothers and fathers of children with autism?
3. What is the level of self-efficacy in mothers and fathers of children with autism?
4. Is there a relationship between stress levels and sense of coherence in mothers and fathers of children with autism?
5. Is there a relationship between the level of stress and self-efficacy in the studied groups?

The study involved 62 people. The analysis included age, education, family type, place of residence of parents of children with autism, number of children in the family, gender, age of children, type of autism and age of diagnosis. A set consisting of the respondent's particulars and three questionnaires was filled in by 62 parents of children with autism in the age group of 25 to 55 years. Parents aged 34–35 predominated. The average age of parents of children with autism was 37.37 years. The study involved 32 mothers and 30 fathers, constituting 51.6% and 48.4% of the respondents, respectively. Forty-four people had higher education and constituted 71% of the studied group. The remaining 18 had vocational or secondary education, constituting 29% of the entire studied group. Among the respondents were non-working parents who only cared for children, as well as working parents: farmers and professionals specialising in areas such as IT, economics, medicine, physics and chemistry.

While the largest group of respondents were city residents (N = 52), who constituted 83.9% of the group, the remainder (N = 10) lived in rural areas and constituted 16.1% of the group. Most respondents were married or in informal relationships (N = 50) and the smallest group were divorced parents and single persons (N = 12). Parents with one or two children participated in the study. Among the children of the examined parents were 58 boys and four girls. Research results have confirmed the generally known tendency that autism most often occurs in males. The average age of children was 7.77 years and the standard deviation was 3.15. The average age of diagnosis was four years old and the standard deviation was 2.16. Experts consider childhood autism to be severe autism. It is often

referred to as early childhood autism, classic autism, pervasive developmental disorder, atypical autism or hyperkinetic disorders. The listed cases differ in the scope, severity and age of the onset of autism disorders compared to the light form of autism which is Asperger syndrome. In this study, 18 children were diagnosed with Asperger syndrome. The largest group included 44 children with severe autistic disorders, which constituted 77% of all children of the examined mothers and fathers. Among them, most children were diagnosed with childhood autism (N = 17), which constituted 27.4%. The next largest group included children diagnosed with a pervasive developmental disorder (N = 16), constituting 25.8%. Nine children diagnosed with early childhood autism (14.5%) and two with atypical autism (3.2% of the group).

The study was conducted at the neurological disease clinic of the EEG Institute in Warsaw as part of the free-of-charge action 'Let's Help Autists'. So far, no child participating in the study had had an electroencephalogram (EEG) test. This is associated with the great difficulties in conducting the study, long waiting time and the considerable costs of testing. It should be emphasised that many children with autism underwent successful EEG testing during this research for the first time in their lives. The difficulty of performing an EEG is that during a standard examination, the recording begins when a patient is awake and then falls asleep. They must fall asleep naturally without sleeping pills. This is a big problem for a child with autism. Participation included a free EEG, explanation of the EEG and a free neurological consultation based on analysis of the EEG results. Autism is currently dealt with by three specialties: psychiatry, neurology and psychology. Each specialist is expected to make a diagnosis and issue an opinion about an autist's functioning. A neurologist must assess brain activity based on an EEG and magnetic resonance imaging (MRI). Most often, the neurologist is asked to make an epilepsy diagnosis and prescribe medications. Autists often suffer from this disorder. They may have epilepsy with generalised or partial seizures and a loss of awareness. Mothers and fathers of children with autism residing in Warsaw, Katowice, Lublin and the Świętokrzyskie Province anonymously and voluntarily participated in the study. Parents were informed about the purpose of the study and their right to refuse participation, and were asked to turn off their mobile phones before completing the questionnaires.

The average time taken to complete the questionnaires, which were set in the same order for all participants, was 40 minutes. Parents completed the respondent's basic particulars and the questionnaires PSS-10, SOC-29 and GSES in the same office, after the child's EEG. These were usually carried out when the children were asleep due to their lack of cooperation with doctors caused by the severity of their disorder or age. The children came to the EEG Institute having received special individual instruction by phone to prepare them for the examination and after a date was arranged with their parents. All children were diagnosed with autism and had documents from psychologists or psychiatrists.

Research results

The results of statistical analyses were calculated based on statistics for the following variables: stress level, sense of coherence and self-efficacy of the respondents. The first step of the statistical analyses was to determine the level of the above-mentioned variables in the studied groups and to answer questions 1, 2 and 3. The next step was to check and analyse the examined variables to select the appropriate statistical tests that would be helpful in further study of the results. For deeper analysis, calculations were made regarding personality variables for the entire group of subjects. The skewness and kurtosis values of all psychological variables indicate that the distribution does not deviate from the normal distribution curve (skewness and kurtosis </1/). Table 1 contains data from the descriptive statistics for the questionnaires PSS-10, SOC-29 and GSES of the examined group (N = 62).

Table 1

Descriptive statistics for the questionnaires PSS-10, SOC-29 and GSES of the studied group (N = 62)

	M	Sd	Skewness	Kurtosis
Perceived stress level	17.81	6.50	-0.39	-0.06
Self-efficacy	28.77	5.14	-0.51	0.37
Sense of coherence	127.60	29.45	0.02	-0.07
Understanding	43.35	11.67	0.20	-0.20
Resourcefulness	44.81	11.44	-0.18	-0.27
Meaningfulness	39.44	8.49	-0.18	-0.66

Source: own study

The results of the statistical analyses show that mothers and fathers constituting the studied group show a medium level of stress and a medium level of self-efficacy.

In the next step of the analysis it was examined whether there were differences in stress levels, sense of coherence and self-efficacy between mothers (N = 32) and fathers (N = 30) of children with autism.

Table 2

Comparison of results for mothers (N = 32) and fathers (N = 30)

	Mathers		*Fathers*		t	P
	M	Sd	M	Sd		
Perceived stress level	20.31	6.16	15.13	5.82	3.40	0.001*
Self-efficacy	27.81	5.37	29.80	4.75	1.54	0.13
Sense of coherence	119.97	30.27	135.73	26.69	2.17	0.03**
Understanding	40.09	12.11	46.83	10.27	2.36	0.02**
Resourcefulness	41.88	11.92	47.93	10.17	2.15	0.03**
Meaningfulness	38	8.89	40.97	7.90	1.39	0.17

**p ≤ 0.001; **p ≤ 0.05*
Source: own study

Data obtained from Student's t-test calculations for independent groups by gender are summarised in Table 2. Women reveal a higher level of stress, a lower sense of coherence, understanding and resourcefulness than men. The differences are statistically significant ($p \leq 0.001$; $p \leq 0.05$). However, the results of statistical analyses show that mothers and fathers do not differ in their level of self-efficacy.

In order to deepen the statistical analysis, intermediary variables such as education and type of autism were taken into account. It is worth noting that the way autism is classified remains ambiguous because of difficulties in differentiating pervasive developmental disorders. The criterion for classification is the severity of the disorders or the age of diagnosis. Since the 1990s, autism types have been most often divided into autism with severe disorders and a mild form of autism called Asperger syndrome (Pisula, 2015a, pp. 14–30). This division has been used for the purposes of this study. Autism with severe disorders thus includes childhood autism, atypical

autism, a pervasive developmental disorder and early childhood autism.

Analysis of differences in the level of stress, sense of coherence and self-efficacy after dividing the group of respondents into groups of parents with higher education and those without higher education as well as the group of parents of children with Asperger syndrome and parents of children with severe autistic disorders showed no differences in the level of perceived stress, sense of coherence and self-efficacy between parents with a university degree and parents with primary or secondary education. However, analysis of the results taking into account the type of autism showed differences in self-efficacy ($p \leq 0.001$), sense of coherence ($p \leq 0.01$) and its three components ($p \leq 0.01$; $p \leq 0.05$) between parents of children with Asperger syndrome and parents of children with severe autistic disorders. No significant statistical difference indicates that there are no differences in the level of perceived stress between parents of children with Asperger syndrome and parents of children with severe autistic disorders.

The next step was to analyse the correlation between stress levels, self-efficacy and sense of coherence. The r-Pearson correlation coefficient was used to this end. It was also checked whether there was a relationship between the level of stress, self-efficacy and sense of coherence in the entire group of parents studied and in two respective groups: mothers and fathers. Table 3 contains data on the relationship between the level of stress, sense of coherence and self-efficacy for the entire group of respondents (N = 62) and for mothers (N = 32) and fathers (N = 30).

Table 3

Comparison of results of the correlation between stress levels and personality variables

	Self-efficacy	Sense of coherence
Stress level		
N = 62	-0.68	-0.74
N = 32	-0.69	-0.74
N = 30	-0.66	-0.68

Source: own study

The results of our study show that there is a negative correlation between the level of stress, sense of coherence and self-efficacy for

the entire group of respondents and for the respective groups of mothers and fathers of children with autism. The results prove that the higher the sense of coherence and self-efficacy, the lower the level of stress in parents of children with autism.

In order to deepen the analysis, correlation coefficients between the examined personality variables of the entire group of subjects (N = 62) modified by the mediating variable 'autism type' were calculated. The variable 'autism type' was divided into autism with less severe autism traits – Asperger syndrome – and autism with severe autistic disorders, which included childhood autism, atypical autism, pervasive developmental disorder and early childhood autism.

Table 4 contains the results of the analysis of the relationship between the level of stress, sense of coherence and self-efficacy for the entire group of respondents (N = 62) when divided into parents of children with Asperger syndrome (N = 18) and parents of children with severe autistic disorders (N = 44).

Table 4

Comparison of correlation results for parents divided into groups by severity of autistic disorder

Stress level	Self-efficacy	Sense of coherence
Parents of children with Asperger syndrome	-0.66	-0.61
Parents of children with severe autism	-0.73	-0.79

Source: own study

The results indicate a significant negative correlation between the level of stress and self-efficacy and sense of coherence, particularly in the group of parents of children with severe autistic disorders. This may mean that parents of children with severe disorders are more likely to experience less stress and have a higher sense of coherence and self-efficacy than parents of children with Asperger syndrome.

Stress arises in parents of children with autism because of continuous, intensive and long-term childcare. It is conditioned by various difficulties in the field of social communication, language and speech development disorders and limited behavioural patterns

in autists. Numerous research results have shown that parents of children with autism have a higher stress level than parents of healthy children and those with chronic diseases (Pisula, 2014, p. 158). However, the results of our study prove that parents of children with autism do not assess their life situation as stressful and excessively burdensome because of special needs childcare. The differences between our results and the results of other studies may be due to: less tense mothers and fathers due to the fact that they completed a set of questionnaires after a successful EEG examination, use of the too general PSS-10 questionnaire, which may be inadequate and less sensitive to the stress state of parents of children with autism, and a small group of respondents. It is possible that the use of a stress measurement tool for specific subjects, such as the Questionnaire on Resources and Stress for Families with Chronically Ill or Handicapped Members (QRS) developed by J. Holroyd, would give results similar to those of other studies indicating that the level of stress in parents of children with autism is higher than average. The QRS contains 66 items and 11 sub-scales. It measures the level of stress and the availability of support resources in dealing with it. The questionnaire measures the level of stress in areas related to the depth of a child's dependence on the guardian, the child's cognitive disorders and deficits, parents' problems, lack of reinforcements and personal burdens of carers, family difficulties caused by limitations in the development of each family member and the financial condition of the family. In order to accurately measure the stress of parents of children with autism, an interview or in-depth observation can also be used.

The results of many studies indicate a positive impact of self-efficacy on the mental and physical state of an individual and on their ability to cope with stress. The results of our study show that carers of children with autism have a medium level of self-efficacy. This means that they have a sense of agency in their activities, their own capabilities and competences to perform and control tasks posed by life situations. Małgorzata Sekułowicz (2013, p. 75) obtained similar results when studying self-efficacy in parents of children with disabilities.

A sense of coherence is considered to be one of the correlates of coping strategies. The results of the study indicate a lower level of

coherence in parents of children with autism compared to the groups of subjects examined using Antonovsky's SOC-29 questionnaire. This means that parents of children with autism are not convinced that they fully understand their life situation related to the child's condition, perceive their ability to deal with this problem as negligible and consider their competences and skills for dealing with burdensome duties to be insufficient. The difficult therapy for children with autism, requiring time and financial and physical resources of parents, often gives little improvement. This situation reduces their belief in their own ability to cope with tasks and takes away their faith that their efforts make sense. The results obtained in our study are not surprising in the context of the results of previous studies. Comparable data can be found in Pisula (2015b, pp. 61–64) and Dąbrowska (2008, p. 30) who deal with a sense of coherence in parents of ill children. Researchers characterise parents of children with autism as withdrawn from social interaction, attached to specific patterns of behaviour and hypersensitive to criticism from the environment. These features may play a role in the development of a reduced sense of coherence (Kano et al., 2004). Comparing the results of our own and other studies, the level of coherence and its three components in parents of children with autism is higher than that in the siblings of patients with schizophrenia. However, it seems that these results need to be approached with a certain degree of caution due to differences between the studied groups. The group of surveyed carers of children with autism and the group of siblings of mentally ill people differ in size, degree of kinship, age of onset and duration of the disorder.

One of the factors conditioning the severity and specificity of stress related to raising a child with autism is parents' gender. Mothers and fathers perceive difficulties in a child with autism's development differently. Mothers are more burdened with everyday childcare and experience their condition more emotionally, more often give up their personal development, have more health problems, lower self-esteem and a sense of poor performance as child-carers. The results of our study indicate that fathers do not notice greater difficulties associated with raising a child with autism in comparison with most mothers who assess their level of stress as elevated. This interpretation is confirmed by the results of many

studies that show differences in the level of tension in mothers and fathers regardless of a child's age, severity of disorder, geographical region and culture. Moreover, the results of many studies indicate a higher stress level in mothers of children with a pervasive development disorder compared to that of mothers of healthy children, with Down syndrome and other disorders (Kasari and Sigman, 1997; Pisula, 2004; Dąbrowska and Pisula, 2010). However, there are no differences in the assessment of burdens associated with deficits in child development between mothers of children with autism and mothers of children with life-threatening diseases. The results of research on fathers' stress show that caring for a child with autism is a source of greater stress than caring for children with Down syndrome and cerebral palsy. Complete information on the stress level in parents of children with autism is provided by the results of studies comparing stressors affecting mothers' and fathers' tension. It has turned out that fathers are more worried about the lack of communication and physical fitness, and mothers are more aware of the lack of social support and labelling and stigmatising behaviour of other people towards them and the child (Pisula, 2015b, p. 43).

A sense of coherence is the central construct of Antonovsky's model. It identifies an individual's resources as sufficient to understand that life events are explainable and can be coped with using available resources. The motivation to act is created by a sense of meaningfulness, thanks to which an individual judges that commitment is worth the effort. Therefore, a high sense of coherence gives a man confidence in dealing with problems. Currently, there is not much research on the level of coherence in mothers and fathers of children with autism. Based on the results of a few studies, it can be stated that parents of children with autism have a lower sense of coherence than parents of healthy children or with other disorders (Sivberg, 2002; Margalit, Raviv and Ankonina, 1992). Our study has shown that mothers of children with autism have a lower sense of coherence than fathers. This means that mothers perceive the situation related to the child's condition as an uncontrolled and incomprehensible event, feel helpless and have less confidence in their ability to control tension than fathers. In contrast, researchers dealing with the issue of stress and coherence in carers of children with autistic disorders (Klepp et al., 2007; Roothman et al., 2003;

Pisula and Kossakowska, 2010) did not find differences in a sense of coherence between mothers and fathers. These results were unexpected and inconsistent with the results obtained by other researchers (Oelofsen and Richardson, 2006). Pisula and Kossakowska claim that the reasons for discrepancies in their final results include respondents in similar situations, meaning that mothers and fathers came from the same families, and a young age of children with autism, requiring commitment to intensive care from both parents and specialists (Pisula and Kossakowska, 2010, pp. 1490–1491). In contrast, parents involved in our study came from different families whose children had been participating in various therapies for several years. In the questionnaires, parents most often mentioned the support of psychologists, educators, speech therapists as well as sensory integration therapy, EEG-Biofeedback training and social therapy.

Self-efficacy affects many aspects of life, makes it possible to set higher goals and encourages making more effort in meeting tasks. Research indicates no difference in self-efficacy between carers of children with a pervasive developmental disorder. This may mean that mothers and fathers perceive changes in their lives related to caring for a child with autism in a similar way.

It can be assumed that parents who do not have higher education, and thus knowledge about the availability of information about autism and therapy, will have a higher level of stress and lower self-efficacy and sense of coherence. However, based on the results of the study, it can be concluded that there are no differences in the levels of personality variables. It can mean that all parents of children with autism are equally involved in care and upbringing regardless of education.

The analyses conducted show differences in the level of perceived self-efficacy and coherence, as well as no differences in the level of perceived stress between parents of children with Asperger syndrome and parents of children with severe autistic disorders. Caregivers of children with severe disorders have a lower self-efficacy compared to parents of children with Asperger syndrome. There is no doubt that these differences result from difficulties related to the longer time and intensity of care and therapy, as well as an often small improvement in the functioning of children after therapy. It would

seem that, due to the occurrence of smaller cognitive deficits, parents of children with Asperger syndrome have a lower level of stress compared to parents of children with severe autistic disorders. However, the results of our study indicate that there are no differences in the severity of stress between parents in the two groups. This means that all respondents experience overload due to the difficulties associated with raising a child diagnosed with an autism spectrum disorder. High stress levels in parents of children with Asperger syndrome are caused by the low social skills of the children and the resulting problems in relationships with people. Data from other studies also show high levels of tension, anxiety and depression in parents of children with Asperger syndrome (Epstein et al., 2008; Mori et al., 2009; Lee, 2009).

In our study, the relationship between the examined personality variables was analysed. The results show a significant correlation between the level of stress and sense of coherence and self-efficacy in the entire group of parents surveyed and in mothers and fathers of children with autism. These results may indicate that the intensity of stress in all carers of children with disabilities, as well as in mothers and fathers separately can be affected by: the belief that life makes sense, acceptance of one's life situation as well as the commitment and effects of the efforts put in childcare. Similar interesting research results can be found in the literature. Pisula (Winnie Mak, Anna Ho and Rita Law, 2007; Pisula and Kossakowska, 2010) shows that mothers with a strong sense of coherence exhibit lower levels of stress, regardless of the severity of a child's developmental disorders. Data from other studies have shown that the low self-efficacy of those caring for children with an autism spectrum disorder is associated with higher levels of parental stress (Hastings and Brown, 2002; Kuhn and Carter, 2006).

Parents of children with autism often have to deal with situations they do not understand and about which they feel helpless when therapy does not give visible improvement. Most often this situation occurs in the case of parents of children with severe autistic disorders. The results of our study indicate a negative correlation between the level of stress, self-efficacy and sense of coherence, particularly in the group of parents of children with severe autistic disorders. Certainly, the severity of the disorder and poor results of

therapy cause impatience and doubts in parents about their capabilities, assessment of resources and the meaning of the struggle to improve the child's functioning and reduce high stress. It should be noted that there is little research on the relationship between stress levels and sense of coherence and self-efficacy. This topic has not been well understood. Based on a few studies, it can be concluded that the severity of autism disorders in a child is the greatest stress factor (Lyons, A. M., Leon, S. C., Phelps, C. E. R., Dunleavy, A. M., 2010). Researchers most often consider the correlation between coping strategies and shaping the well-being of parents of children with autism. There have been no longitudinal studies to check the relationship between stress and coherence. It is worth considering how a lower sense of coherence and self-efficacy as a disposition to cope with difficult situations affect the stress level in parents of children with varying degrees of autistic disorders.

The presented results of the study on parents of children with autism do not cover all problems of parents of children with autism and scientific analyses carried out in this respect. They make it possible, however, to point out differences in parents' functioning. Mothers of children with autism perceive their parental role as more stressful, have a lower sense of understanding of the situation and feel more helpless in controlling life difficulties than fathers. Often, female carers for children with autism have more problems with somatic illnesses and lower life satisfaction. Based on the research results, it can also be stated that the sense of understanding of the situation related to a child's condition, a sense of agency, a positive assessment of one's own capabilities and resources to cope with difficulties and self-efficacy in actions taken to improve the functioning of a child with autism affect the level of stress. Moreover, the results of our study indicate a correlation between the level of stress and sense of coherence and self-efficacy in mothers and fathers, particularly in parents of children with severe autistic disorders.

Since a sense of coherence and self-efficacy affects the stress levels of parents, it is worth asking whether specialists can increase these attributes. It can also be considered how professional support can help solve problems related to raising and caring for a child with autism. Many researchers claim that professional support helps in

dealing with problems faced by the parents of children with autism and in developing the ability to use help in the form of advice or information. This ability is known to improves human well-being and strengthens the motivation to act.

In the study on parents of children with autistic disorders (S. Siklos and Kathryn A. Kerns, 2006), it turned out that the level of satisfaction with the support received was lower in parents of children with an autism spectrum disorder than in parents of children with Down syndrome. This situation can be explained by various reasons: the complexity of autistic disorders and difficulties in its classification and diagnosis, little knowledge about the causes of the disorder, an unsatisfactory number of medical and psychological specialists educated in autism and the lack of a coherent system of social assistance for parents.

Due to the variety of types and specificity of disability in the case of autism and the related difficulties in classifying and diagnosing autism, parents of children with autism receive conflicting information about their children's health. The reasons for parents' dissatisfaction with the help of specialists include: a small number of neurologists, psychiatrists and psychologists specialising in autism, long waiting times for medical examinations and expensive tests: genetic and immunological tests, EEG and MRI.

The parents' difficult situation is exacerbated by the lack of a coherent and developed system of services, as well as ignorance of specialists about autism. The 2013 report of the Synapsis Foundation, which has been dealing with children with autism for many years, presents not entirely satisfactory data on the financial and staff limitations of state institutions in seven Polish provinces. The most important research results show that social assistance centres established by local authorities do not fully support parents financially. They lack employees educated in the field of autism and aware of parents' problems and needs, causing difficulties in choosing the appropriate form of assistance from employees of social assistance centres (Report 2013, pp. 104–108). Moreover, due to the lack of competence, specialists find it difficult and aggravating to assess work with children with autism (Pisula, 2015b, p. 41).

Parents of children with autism are often stressed by a negative assessment of their ability to raise their children because of the

unpredictable and inadequate behaviour of children with autism in public places. Among specialists' tasks may be to propagate information about this disorder, which will positively influence the change in people's attitudes towards parents (ibid., p. 38). Professional support in coping with stress and strengthening beliefs that parents can help their child change their functioning can include emotional and instrumental support by providing information on autism therapy centres and funding for therapeutic activities. There is no doubt that a good parent-specialist relationship, correct contact, providing knowledge about disorders and ways of dealing with children with autism will help parents in their unexciting and everyday childcare. Specialist support provided in the form of counselling, training and workshops will definitely increase these parents' involvement in childcare, strengthen their faith in their own strength and agency, and thus change the functioning of a child with autism.

The results of our and other studies show that parents function in a variety of ways. Research indicates that stress levels and sense of coherence are related to gender and the severity of the autistic traits of children. Mothers of children with autism experience the child's condition more deeply, approach their disability too emotionally and assess their ability to face upbringing difficulties as negligible. Moreover, analyses of the research results indicate that strengthening a sense of coherence and self-efficacy in actions taken to improve the functioning of children can positively affect tension in mothers and fathers of children with autism, particularly in parents of children with severe forms of autism. Of course, it should be emphasised that the observations resulting from our research results require further verification due to the small size of the group of parents of children with autism participating in the study.

Autism presents parents with a special challenge that cannot be met without the help of professionals. Undoubtedly, in order to regain strength and cope with difficulties, people need to be convinced that they will not be alone in difficult moments and that their commitment depends on previous experience of contact with specialists. Specialist support can be provided in the form of workshops and training for parents to develop skills to support a child and create optimal conditions for their development. Research

results obtained by other researchers indicate the beneficial effect of various types of training on the quality of life of parents, an increase in their self-efficacy, a more positive attitude to parental tasks, a change in awareness of parental responsibilities and a decrease in a sense of helplessness. The analysis of our research results demonstrates that parents and particularly mothers of children with autism and parents of children with severe autistic disorders need to be provided with professional support in the form of advice and the assistance of doctors, psychologists and educators.

The situation regarding the needs of families of children with autism in Poland is not satisfactory. Provincial social assistance centres often refuse to help parents of children with an autism spectrum disorder because of the lack of vacancies in special facilities, an insufficient number of trained staff and financial resources. The situation in psychiatric hospitals is not any better, where the staff have difficulty organising therapy and meeting the conditions taking into account the specificity of autism. Currently, non-governmental institutions are more effective in providing therapeutic assistance to children with autism in Poland. The 'Synapsis' foundation and the 'Navicula' boarding school in Łódź enjoy a good reputation.

Therefore, it seems necessary to educate staff as soon as possible, and implement various solutions and forms of assistance for parents. Professional support of caregivers provided by specialists can affect the development of personal resources, increase competence and strengthen parents' belief that a child with autism can show trust and love.

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The peculiarities of dezadaptation of women after the mastectomy and its psychocorrection

Introduction

Generally the incidence of the breast cancer is characterized by a tendency to a steady increase in all member countries of the World Health Organization (WHO). Annually about a million women in the world (600 thousand in developed countries and 300-350 thousand in developing countries) suffer from the breast cancer (www.who.int.).

The highest rates of the breast cancer are recorded in the USA, Canada, France, Israel, Switzerland, Baltic states, the lowest rates – in Japan, Central Asia and African countries (www.who.int.). According to the register of the American National Cancer Society every 28 women in USA die because of the breast cancer, and each eight woman falls into the risk group. Ukraine is no exception, and the number of cases of the breast cancer has increased by 2.8 times over the past 20 years (www.who.int.). For two decades, the number of the breast cancer cases has tripled.

According to the statistics one woman dies because of the breast cancer every hour in Ukraine. About 16.5 thousand cases of insidious diseases are registered and almost half of them end up deadly in Ukraine every year (data for October 25, 2017) (www.who.int.). The main reason for such mortality is the untimely treatment of a doctor.

The breast cancer is mainly caused by a large number of factors: genetic (hereditary), constitutional, socio-economic, associated with the peculiarities of everyday life nutrition, the influence of ecology, pathological processes and others. All of them form the disruption of the hormonal balance in the woman's body. The state loses a large number of able-bodied people because of the high mortality and inability to work due to the occurrence of the breast cancer.

Relevance of research

The issue of the oncological diseases in the world is recognized by WHO as a main priority in medicine. The forecast for 2020 predicts an increase of the number of cancer patients to 20 million annual cases (www.who.int.). Nowadays the most frequent "organ" cancer among women is the breast cancer. It takes the first place among the cancer cases: the number of the breast cancer patients has doubled during the past 10 years.

Due to the development of oncology the life expectancy of the patients with the breast cancer is greatly prolonged, but the main method of the treatment even in the early stages of the breast cancer includes the removal of the tumor cell (mastectomy) which has the disabling effects for the operated women. Thus, in Ukraine almost one third of 16.000 breast cancer patients had the mastectomy. Its results consist of not only in functional disorders that involve the loss of an organ or part of it, but it also cause deep emotional disorders that slow down the process of the adaptation and resocialization (M.K. Khobzey, P. Voloshin, N.O. Maruta and others, 2012; G.M. Kozhina, 2012; B.V. Mikhailov, 2012; O.A. Revenok, O.O. Zaitsev, O.P. Oliynyk, 2009; A.G. Lutsenko, 2006). The surgical removal of the mammary gland destroys the self-confidence and supports the memory of the disease (M.V. Markova, I.R. Kuzhel, 2010; O.A. Revenok, O.P. Oliynyk, S.S. Shum, 2010). The numerous researches show that the iatrogenic cosmetic defect of the appearance leads to the development of the psychological disadaptation (E.V. Kristall, M.V. Markov, T. P. Yavorska, 2012; O.A. Revenok, O.P. Oliynyk, S.S. Shum, 2012; A.Y. Vasiliev, S.I. Tabachnikov, V.G. Bondar and others, 2011; T.A. Adilkhanov, N.Z. Chajunusova, A.G. Korovnikov, 2010; E. A. Kim, I.V. Vysotskaya, 2008).

The post-mastectomy syndrome as a result of the radical mastectomy (PM), includes not only somatic (post-operative cosmetic defect, limfostasis of the upper limb, limitation of the amplitude of movements in the shoulder joint, damage of the peripheral nervous system), but also some psychological disorders (M.V. Markova, O.V. Piontkovska, I.R. Kuzhel, 2012; N.F. Shevchenko, 2010; J. Kim, B. Shaw, 2010; S.I. Tabachnikov, A.Y. Vasilieva, 2009; L.F. Shestopalova, G.Y. Kalenskaya, 2009;

B.V. Mikhailov, 2007) and due to the loss of the breast as an organ which defines the concept of femininity, attractiveness and sexuality, leads to the development of psychosocial disadaptation in the vast majority (96.1%) of the patients (A.Y. Berezantsev, L.I. Monasypova, S.V. Strazhev and others, 2011; G.A. Tkachenko, H.S. Arslanov, V.A. Yakovlev and others, 2008).

According to the foreign researchers the women with a reconstructive operation (with the removal and simultaneous restoration of the breast through prosthetics), have the lower level of depression (T. Zhong, S.O. Hofer, D.R. McCready, 2011; C. Rubino, A. Figus, L. Lorettu, 2007).

Methodology

The state of the psycho-emotional sphere of the examined patients in the pre– and post-operative stages of staying in the inpatient department was assessed using the clinical psychological and psycho-diagnostic research. The patients found complaints about the psychological state through both free interviews and targeted inquiries.

The psychodiagnostic method was used in order to determine the person's self-esteem characteristics by means of the diagnostic method of the operative assessment of the health state, activity, mood (according to D.Y. Reygorodsky, 2002). The methods of the diagnosis of self-esteem Ch. D. Spielberger-Y. L. Hanin to assess the level of the personal and reactive anxiety (according to D.Y. Reygorodsky, 2002), the scale of M. Hamilton HARS and HDRS to determine the level of the anxiety and depression (V.S. Podkorytov, Y.Y. Chaika, 2003; A.S. Zigmond, R.P. Snaith, 1983), a questionnaire on the severity of the psychopathological symptomatology of SCL-90R (by D.Y. Reygorodsky, 2002) were also used.

In order to study the compensatory-adaptive mechanisms of the patients the method of the determining the accentuations of the character of K. Leonhard-G. Shmyshek (according to D.Y. Reygorodsky, 2002), R. Lazarus method "Coping Methods" (L.I. Wasserman, B.V. Iovlev, E.R. Isaeva, 2009); methodology for the diagnosing of the index of the life style to determine the frequency of use and severity of mechanisms of the psychological

protection (L.I. Wasserman, O.F. Ershev, E.B. Klubov, 2005); questionnaire for the determining of the types of the attitudes to the disease (L.I. Wasserman, E.A. Trifonova, E.A. Fedorova, 2008); self-actualization test (L.Y. Gozman, M.V. Lakinskaya, M.V. Kros, 1995) were used. The psychological resource of the women was determined by using of a scale of social support MSPSS of D. Zimet (1988) in the adaptation of V.M. Yalta, N.O. Siroty (1991).

The data obtained in the research were processed by using of the mathematical statistics by the MS Excel program v.8.0.3. and SPSS 10.0.5 for Windows. Primary and secondary statistics were used for statistical processing of data (E.V. Gubler, 1973, S.N. Lapach, 2000).

In compliance with the principles of bioethics and deontology 104 patients with breast cancer after the mastectomy were examined on the basis of Kyiv City Cancer Hospital № 1 in the period from 2007 to 2012. The research was conducted in two stages: psychodiagnosis and psycho-correction. Besides we did a patient survey three times: before surgery, after surgery and before discharge from the in-patient department of the oncology hospital.

At the psycho-diagnostic stage the women were divided into two groups depending on the volume of the surgical intervention: the main group (MG) consisted of 72 patients who had migrated to the RM; the comparison group (GP) consisted of 32 women after the sectoral mastectomy (SM). At the psycho-correction stage the women were divided into three subgroups, depending on the participation in the developed activities: 1 subgroup (1G) consisted of 38 women (part of MG) after the RM. The group was provided with the specially developed comprehensive medical and psychological assistance. The 2nd subgroup (2G) consisted of 30 women (part of the GP) after the SM. The group was provided with the medical and psychological assistance; and a control subgroup (CG) included 36 patients. 34 women after RM and 2 women after SM received the standard therapy without taking measures of the developed comprehensive system of the medical and psychological assistance. At the beginning of the research the socio-demographic characteristics of the patients were analyzed: the distribution by age, education, marital status and labor activity. The main indicators of both groups were homogeneous and that became the basis for the conclusion about the representativeness of the results.

Results

The psychoemotional state of the patients at the pre-operative stage was characterized by the presence of psychoemotional stress, dyssomnia associated with life-style antivital experiences regarding oncological diagnosis, the need for surgical intervention, the operation itself, anesthesia, fears about the expected post-operative consequences, further treatment (chemotherapy, radiation therapy, hormonal therapy) and overall insecurity in future.

All patients were characterized by the decrease in the assessment of their functional state (state of health, activity, mood) compared with the norm ($p < 0,05$). The mood loss (average score – 1.41) was a result of the women finding out about the diagnosis, the need for surgery, the fear of the operation and anesthesia, pessimistic attitude to the treatment and lost hope for the future. The decrease of mood influenced on the deterioration of health (1.87) and activity (1.89) of patients (Picture 1).

Level	Score
mood loss	average score – 1.41
deterioration of health	1.87
activity	1.89

Picture 1

On the base of the OT (47.1) we can characterize the patients as persons which have peculiar premorbid features of the personality-raised anxiety. Besides, the high RT (58.2) was explained by the psychogenic reaction of the patients to the disease, stay in the inpatient department of the oncology hospital, the need for surgery, possible consequences, the unknown future and others. High OT also potentiated the increase of RT (Martynova, 2013, p. 66).

The majority of the women were characterized by the increase in the level of the pathological anxiety (17.25 averages): only 8.7% of the patients had no symptoms of anxiety (the total score on the HARS scale was less than 8), 68.3% of the patients had symptoms of anxiety (8-19 points) and in 23.1% of women – anxiety disorder (more than 20 points).

The depressive manifestations (average score 13.45 for HDRS) were specific for the surveyed subjects (13.35 for the HDRS), the absence of which was established for 18.3% of the patients (Hamilton's total score on the Hamilton scale was less than 7), 35.6% of the women were diagnosed with small (7-16 points), 33.7% of the subjects were moderate (17-27) and 12.5% of the subjects had severe depressive disorder (more than 27 points).

The leading psychopathological reactions of the patients were anxiety-depressive (53.8% of women), asthenoid-depressive (25.0% of patients) and anxious-phobic (13.5% of subjects). The most significant psychopathological symptoms were somatization (average score 1.31), anxiety (1.05), depression (1.02) and phobic anxiety (0.86). The structure of the psychopathological symptoms was as follows: most often anxiety (46.2%), depression (22.1%), somatization (16.3%), phobic anxiety (15.4%) were most often revealed (Martynova, 2013, p. 69).

At the postoperative stage an increase in the assessment of their functional status in both groups was observed. It was associated with overcoming of the difficult and important stage of the operation, which was significantly ($p < 0.01$) higher for the women after the SM, compared to patients after the RM (average score of women's health was 0.24, activity – 2.31, mood – 1.73, among GP – 2.63, 2.54, 2.24, respectively).

The general tendency of the reduction of anxiety (more pronounced for the women of the GP) and an increase of the depressive symptoms (more pronounced in COs) was established: the average score of RT for the women of the CO was 53.6, for the persons of GP – 50.7; anxiety level – 15.7 for the patients with CO and 13.6 in GP; the severity of depression, respectively, 17.9 versus 14.8 points. The overall severity of the psychopathological symptoms in the early postoperative period remained almost unchanged, but there was an increase of the level of the somatization (the average score was 1.64, GP – 1.43) and depression (1.22 points in CO and 1.08 in GP), as well as anxiety reduction (0.92 points in CO and 0.71 in GP), more pronounced for the women with SM ($p < 0,05$). So at the post-operative stage of the treatment of patients in the oncology hospital in the psychoemotional state of the patients

after the mastectomy, there were changes that had significant differences in the various groups (Martynova, 2013, p. 70).

On the base of the analysis of the individual psychological characteristics we used a system of the medical and psychological technology which integrates the various parameters of the psyche of the patients. It points to the psychological mechanisms associated with the violations of psychological (psychological) adaptation. As a result we got an idea of the personal resources of each individual patient and to assess the individual adaptive and compensatory potential of the women which allowed for a more reasonable choice of goals, strategies and tactics of the psychotherapeutic correction and enhancement of the adaptive capacity of patients. We found that most of the women (81.9% of COs and 78.1% of GPs) had the character accentuation. It was caused by the aggravation of personality traits in a situation of massive stress, due to the illness and surgery. The accentuated features of character as distichity (33.3% of the women of CO and 34.4% of GP), anxiety (16.7% of COs and 18.8% of GP), emotionality (15.3% of patients COs and 15.6% of GPs), demonstration (9.7% of surveyed COs and 9.4% of GP) were often diagnosed. They were common for both groups of the women. However, among the patients from the MG, unlike GP patients, there were isolated cyclothymic, exalted and excitatory accentuations (Martynova, 2010, p. 163).

Almost all characteristics of the strategies of the women of both groups were lower than normal which were found only in 6.9% of MG patients and 9.4% of examined GPs. The majority of the patients had a disharmony in mechanisms to overcome illness-related problems. The leading coping strategies for the patients were non-constructive "distancing" (in 83.3% of the women in MG and 71.9% of GPs) and "escape-avoidance" (13.9% of COs and 25% of GPs) and relatively constructive "adoption responsibility" (62.5% of CO patients and 65% of GP).

The constructive strategies for self-control "problem-solving planning" and "social support search" were higher for the women with GPs, compared with MG patients ($p < 0.05$). In addition, all patients who suffered from the mastectomy showed a tendency to use an IPA rather than a coping strategy, an increase in the general level of TPA and prevalence of "objection" in their structure (in 62.5% of OG patients and

59.4 % GP), “projection” (in 40.3% of the women in MG and 34.4% of GP) and “reactive education” (in 30.6% of MG and 20.5% of GP).

We also found the inherent disharmonious combinations of the coping strategies “distancing” – “search for social support” (16.7% in MG and 9.4% in GP); as well as disharmonious combinations of the coping strategies and psychological protections: “search for social support”– “denial” (15.3% in MG and 9.4% in GP); “Planning a solution to a problem” is a “denial” (13.9% in MG and 6.3% in GP), “escape-avoidance” – “intellectualization” (8.3% in MG and 6.3% in GP).

Mostly, the examined women of both groups had ergotypic type of response to the disease (TNR) (25.0% of the MG patients and 28.1% of the GP), sensitively (23.6% of MG and 15.6% of GP) and anxious TNR (13, 9% of surveyed MG and 15.6% of GPs). At the same time for the women of OG, sensitized TNR occurs more often than in the GP as a result of the increase of insecurity and inappropriate perception of oneself because of the post-mastectomy cosmetic defect (Martynova, 2010, p. 81).

The patients with the hypertension were characterized by the average indicators of the TOBOL methodology block (which symboled the tendency towards the displacement of the disease) were higher (43.2 ± 3.41 points) than for the women with MG (38.9 ± 3.12). Levels II (39.1 ± 2.37 points) and III (33.4 ± 2.21) blocks for the patients with MG 2 significantly exceeded those in GP patients (respectively 34.6 ± 2.92 and 30.13 ± 2 , 89), which was a testimony to a more adverse reaction to the disease in CO patients. In both groups the distribution of the peaks of the VKH profile was observed in different blocks, namely, the combination of intra-II (II block) and interphysical (III block) directional responses, which reduced the adaptive capacity of the patients.

The analysis of the self-actualization of the examined women revealed that only 9.72% of the MG patients and 15.63% of the GP were in the self-actualization zone (≥55T-points). In general there was a tendency towards a decrease in self-esteem, self-perception, flexibility of the behavior and spontaneity, as well as high sensitivity and support needs, which was more pronounced for the women with MG, compared with patients with GP ($p < 0,05$).

The analysis of the psychosocial resources was an important component of the research of the adaptive-compensatory potential of the patients. The analysis of the sources of the psychosocial support revealed the sufficient support for the immediate environment, which 70.8% of the MG patients and 75% of the GP observed from the family, from the "significant others" – 65.3% of the women of the MG and 62.5% of the GP, 52 of the friends – 52,8% of the patients with MG and 62.5% of GP. The deficit (<2 points) of the psychosocial support from the family was detected in 29.2% for the women of the MG and 25.0% of the surveyed GP; the lack of the friends' support was 47.2% and 37.5%; the support of significant others was 34.7% and 28.1% of the population (Martynova, 2013, p. 80).

The women of the GP in comparison with MG patients perceived support from others more positively and assessed their psychosocial resource as more adequate. They were characterized by the search for out-of-pocket help, the need for the communication with other people and the establishment of new or maintaining existing psycho-emotional contacts. The surveyed MG perceived the environment more critically, people with a low level of psychosocial assistance observed self-immolation, isolation from others, problems in the communicative sphere.

In conducting a correlation analysis of the level of social support and the severity of psychopathological symptoms in the surveyed the feedback was also found ($r = -0.64$, $p < 0.05$). The patients with a high level of support from the immediate environment showed fewer psychopathological symptoms and their psycho-emotional state was more stable. The women with inadequate social support were at high risk of the psychological disadaptation.

Thus, the leading indicators of the psychological well-being of the women after the mastectomy depended on the existence of social support, as well as the ability, ability and desire to receive it. Besides, the lack of the assistance from the immediate environment or the inability to identify the patients and their psycho-emotional state was characterized by the presence of pathological manifestations, which tended to deteriorate, depending on the volume of surgical intervention.

Discussion

The analysis of the compensatory-adaptive potential of the examined patients after the mastectomy allowed to distinguish the intrapersonal and psychosocial components. As a result the systematized situational and pathogenetic factors contributed to the formation of the psychological adaptation or impair the adaptive potential and prognosis and leaded to the development of maladaptation of the patients (Table 1).

Table 1

The components of the compensatory and adaptive potential of the women after the mastectomy

Unfavorable components	Favorable components
Intrapersonal component	
situational factors	
high level of OT and RT	Average and low levels of OT and RT
increase of the level of pathological anxiety and depression	lack or non-intense symptoms of anxiety and depression
high level of somatization	absence of psychopathological signs
pathogenetic factors	
dysthymic, anxiously fearful and demonstrative types of accented character traits	emotional type of accentuated character rice
Increase of the general level of tension over coping, “negation”, “projection”, “reactive formation” and “substitution”, non-constructive coping strategies (“distancing” and “escape-avoidance”)	“intellectualization”, constructive (“self-control”, “problem solving planning”, “search of social support”) and relatively constructive coping strategy (“taking responsibility”)
disharmonious combinations of copings with each other and “distancing” – “search of social support”, “search of social support”– “negation”; “planning a solution to a problem” – “denial”, “escape-avoidance” – “intellectualization”	harmonic combinations of copings among themselves and “self-control” – “acceptance of responsibility”, “planning of solution of the problem” – “search of social support”, “planning a solution to a problem” – “intellectualization”
sensory, anxious, ergotaic type	harmonious type
low self-actualization	high level of self-actualization
Psychosocial component	
lack of social support	sufficiency of social support

We developed a comprehensive system of the medical and psychological assistance for the women which had the mastectomy.

The mentioned above system contained a psychodiagnostic study, psycho-education (informational support), psycho-correctional measures, volunteer help. The data forced to turn to a holistic approach aimed at activating adaptive resources of the patients. The aim of the medical and psychological influence was to level the maladaptive and potentiation of the favorable components of the patients' compensatory and adaptive potential.

At the pre-operative stage of staying in the oncology hospital the medical and psychological care was aimed at reducing of the level of pre-operative anxiety and was aimed at experiencing the associated surgical intervention (fear of pain, unpleasant sensations, physical pain, fear of anesthesia, its side effects, sensation helplessness, loss of control, etc.), as well as with the future "post-operative status": the result of the operation, its consequences (cosmetic defect); side effects of anesthesia; redistribution of duties in the family for the time of the treatment, difficulties associated with work, etc.

At the post-operative stage the medical and psychological measures were aimed at reducing the severity of the psychopathological (depressive and anxiety) symptoms of the patients after the mastectomy and the primary life adaptation of the women after the surgery. After discharge from the hospital the patient had the opportunity to attend monthly "School of Health". Its work was aimed at further adaptation of the patients to new living conditions, the formation of the additional sources of psychosocial support.

We also researched the peculiarities of the psychoemotional sphere and the complex assessment of the internal and psychosocial resources they concluded that the type of lesions of the compensatory-adaptive potential (partial or total reduction) of the patients. The partial reduction of the adaptive potential is mainly an isolated distortion of the intra– or interphysical mechanisms of the psychological adaptation. Total reduction was a combination of the deformation of the intranasal and interphysical mechanisms of the psychological adaptation of the patient. The specified differentiation of violations of the mechanisms of the psychological adaptation laid the basis for defining the targets of psycho-corrective influence.

The advantage of intrapsychiatric mechanisms has led to patients' misdiagnosis mainly in the situation of "being for themselves", interphysical mechanisms – in the situation of "being-for-others". In both cases the targeted effects were classified as perceived by the

patient and identified as a psychological discomfort which had not been identified as “problem areas” for the patient (Table 2).

Table 2

The leading pathogenetic targets of psychocorrection of disadaptation of the women after the mastectomy

Parameter	Intrapsychic targets		Interphysical targets	
	perceived	unconscious	perceived	unconscious
coping strategies	distance, escape – avoidance	low expressiveness of coping mechanisms	confrontation, escape – avoidance	low expressiveness of coping mechanisms
classification	intellectualization, rationalization	displacement, negation	non-expressed character	projection, substitution, reactive formation, regression
Types	anxiety, hypochondria, neurasthenic, melancholia, apathy, ergotaptic, anosomalous		sensational, egocentric, dysphoric, paranoid	

The differentiation of the psycho-correction tools was carried out depending on the awareness of the pathogenetic interphysical and intrapsychic targets. Thus, in identifying well-understood targets, psycho-corrective measures included humanistic, rational-emotional, cognitive techniques.

The psychocorrectional measures consisted of the integration of individual, group and family psychotherapy. The family therapy helped for the understanding, supporting and formation of the adequate microclimate in the family. The relaxation methods were used to reduce the intensity of the negative bodily sensations.

The informational support included providing the women with special knowledge about the disease, its types of the treatment, statistical prognostic data, leveling of side effects of chemical and hormonal therapy, training in rehabilitation measures for the prevention of lymphadenitis and lymphostasis, restoration of the function of the hand on the operated side (the self-massage of the hands) and proper nutrition. Handouts in the form of sights and informational sheets were also used. Besides, the classes on aesthetic restoration of appearance with demonstration of wigs, breast prostheses and specialized linen were held.

The meetings with sick volunteers who had such operations, overcame their path to “recovery” and were in a state of the compensation had a positive effect. After discharge from the hospital the patients visited the “School of Health” which was organized in the form

of the informal communication with various specialists: surgeons-oncologists, chemotherapists, nutritionists, psychologists, psychotherapists, physiotherapists, etc. The women talked with each other, celebrated and spent time together at these meetings. These measures were aimed to provide the social support for the women after the mastectomy.

The self-assessment of the availability of the social support was a general and important feature. The effectiveness of psycho-corrective work with the women after the mastectomy depended on the mentioned above feature. The assessment of the effectiveness of the measures taken for the women after the mastectomy took place before discharge from the inpatient office (Table 3). In general the patients with 1G and 2G up to 10-14 days of course of the treatment showed a significant decrease of anxiety and depressive symptoms and a person 2G ($p < 0,05$) had the best results of the treatment. The majority of the women had dyssomic disorders, anti-vital experiences disappeared (Martynova, 2013, p. 66).

Table 3

The dynamics of the psychoemotional status of the women after the mastectomy during in-patient care (average score M ± m)

Evaluation parameter	Groups of surveyed								
	1st group (n=38)			2nd group (n=30)			Control group (n=36)		
	1	2	3	1	2	3	1	2	3
Well-being	1,89± 0,13*	2,24± 0,11*	3,67± 0,12*	1,85± 0,11*	2,63± 0,13*	4,23± 0,11*	1,87± 0,12*	1,93± 0,09*	2,21± 0,10*
Activity	1,88± 0,11*	2,31± 0,13*	3,56± 0,14*	1,90± 0,15*	2,54± 0,12*	4,97± 0,11*	1,89± 0,09*	1,95± 0,15*	2,29± 0,10*
Mood	1,41± 0,09*	1,73± 0,10*	3,27± 0,11*	1,42± 0,12*	2,24± 0,12*	4,18± 0,13*	1,4± 0,15*	1,57± 0,14*	1,78± 0,11*
OT	47,1± 1,11*	46,9± 1,13	46,1± 0,11	47,2± 1,20*	46,9± 1,10	45,8± 0,12	47,1± 0,12*	47,0± 0,09	46,5± 0,13
RT	58,1± 1,02*	53,6± 1,15*	44,2± 1,01	57,8± 1,21*	50,7± 1,22*	39,8± 1,02	58,0± 1,01	55,2± 1,12	47,4± 1,11
Anxiety	17,4± 1,01*	15,7± 1,14*	12,2± 0,11*	17,1± 1,11*	13,6± 1,14*	10,4± 0,12*	17,4± 0,12*	16,6± 0,09*	15,9± 0,13*
Depression	13,6± 1,13*	17,9± 1,13*	10,7± 1,01	13,3± 1,11*	14,8± 1,14*	9,1± 1,02	13,6± 1,01	16,8± 1,12	13,8± 1,11

Note: 1 – before surgery, 2 – after surgery, 3 – before discharge;
** – probability of error $p<0,05$.*

So the developed system of the measures of the medical and psychological assistance allowed the women after the mastectomy to reduce anxiety and depression symptomatology ($p < 0.05$), to alleviate manifestations of psychological disadaptation by stimulating their compensatory and adaptive potential, to improve the quality of life, faster and better way to recover.

We were given a theoretical substantiation and practical solution to the urgent problem of the medical and psychological assistance to the women after the mastectomy. From the standpoint of the systematic approach to the study of clinical manifestations and patterns of the psychological disadaptation of the patients after mastectomy, taking into account the possibilities of their compensatory and adaptive potential, a system of medical and psychological assistance to the women after the mastectomy has been developed.

The women after the mastectomy as a result of the breast cancer, distortion of the psychoemotional state of affective (anxiety, depression, phobic anxiety) and neurotic content (due to a significant increase in somatization, the severity of which does not correspond to the objective consequences of surgical intervention) is established.

At the pre-operative stage 100% of the women have a low estimate of their own functional state (state of health, activity, mood), high (61%) and average (39%) reactive anxiety, presence of symptoms of anxiety (68.3%) and anxiety disorder (23.1 %), depressive symptoms with a tendency to somatization of different degrees of severity (81.8%), which are implemented as anxiety-depressive (53.8%), asthenia-depressive (25.0%) and anxious-phobic (13.5%) of psychopathological reactions. In the post-operative period a decrease in anxiety is registered, however, an increase in the severity of depression and somatization (Martynova, 2013, p. 80).

It is proved that the state of the psychoemotional sphere of the women after mastectomy is related both to the volume of surgery and to the psychosocial support of others. The patients after the radical mastectomy were characterized by a significantly greater severity of the psychopathological symptoms than for the women after the sectoral mastectomy (the average severity of the psychopathological anxiety for the patients after the radical mastectomy – 15.7, after the sectoral mastectomy – 13.6, depression – 17.9).

The patients with a high level of the social support manifestations of the psychopathological symptoms were less pronounced, and the psycho-emotional state was more stable. In case if there was a shortage of assistance from the immediate environment or the patient’s inability to identify it, their psycho-emotional state was

characterized by the pathological manifestations, which tend to deteriorate, depending on the volume of surgical intervention.

The leading individual psychological peculiarities of the women after the mastectomy in terms of their influence on the development of their maladaptation ($p < 0,05$) determined the exacerbation of characterological features in the situation of massive stress because of the illness and surgery (expressed dysthymic – 33.3% of the women in the MG and 34.4% of the GP, alarming – 16.7% of the MG and 18.8% of the GP, emotional – 15.3% of the MG and 15.6% of the GP and demonstrative – 9.7% of the surveyed COs and 9.4% of GP – accentuation), deformation of mechanisms for overcoming problems (domination of non-constructive coping strategies and their disharmonious combination ment of psychological defense mechanisms in 93.1% of the women and 90.6% of MG patients), (almost 90% of patients with MG and 84.4% of GP patients), as well as high sensitivity and need for support, which is more pronounced for the women with radical mastectomy (Martynova, 2013, p. 67).

Conclusion

On the basis of the analysis of the adaptive-compensatory potential of the women after the mastectomy, its internal personality and psychosocial components and their components are isolated, among which systematized situational and pathogenetic factors that can contribute to the formation of the psychological adaptation or impair the adaptive potential and prognosis and lead to the development of the disadaptation of the patients.

The unfavorable situational factors included a high level of reactive anxiety, pathological anxiety, depression and somatization, to pathogenetic – dysthymic, disturbing and demonstrative types of accentuated character traits, prevalence of IOP over coping strategies and various maladaptive variants of their combination, sensitive, disturbing types of response to the disease, low level of self-actualization, low level of the social support.

Besides, the necessity of applying a holistic approach aimed at stimulating own resources of an organism, activating adaptive, rather than reducing the maladaptive factors, was based on which a comprehensive system of the medical and psychological care for the women after the mastectomy has been developed. This care was

based on the study of psychoemotional, intrapersonal and psychosocial patterns of the psychological disadaptation.

The psychodiagnostics and psychocorrection were used at the stationary stage of the treatment the components of the medical and psychological assistance to the women after the mastectomy. They included the psychotherapeutic interventions, psycho-educational measures and volunteer help. The system of measures of the medical and psychological help enabled the women after the mastectomy to reduce anxiety, depressive symptoms, level of the psychological maladaptation by stimulating the compensatory-adaptive potential ($p<0,05$).

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Prevention of the Development of Post-traumatic Stress Disorder in People who have experienced an Armed Conflict in the East of Ukraine

Introduction

Armed confrontation in the South-East of Ukraine, considerable impoverishment of the population, the lack of a comprehensive national policy in the interests of citizens – these and many other factors led to the development of the management experiences of the individual, that cause the intellectual, spiritual, emotional and physical tension man. Today, almost two million Ukrainians are forced to leave their homes, fundamentally change their life structure and search for new housing, thousands in recent years, died in a result of armed conflict, and hundreds of them officially recognized missing. Psychological assistance is necessary for all civil and military people who went through or were affected by the war. The large-scale traumatic experience is new and atypical of the modern and independent Ukraine. The majority of participants of anti-terroristic operation (ATO) come back suffering from acute stress disorder. Yet, they lack skills and knowledge of how to deal with the psychological state and feelings they are experiencing. It is important to emphasize the fact that this phenomenon has impact not only on the combatants, but also on their close surrounding – family, friends, acquaintances, who often don't know how to behave and react. The most vulnerable category is children who have not yet formed the compensatory mechanisms, for they can adopt the symptoms from their close surrounding – parents or other relatives. Functional complaints, sleep disorder and disadaptation, posttraumatic stress disorder are common reactions of mind to stressful or life-threatening situations. Not all of this, could but affect both at the

level of public consciousness, and on an individual system of social attitudes and value orientations of the individual, i.e. on the viability of the individual. Any crisis is individual phenomenon, as the definition of its complexity is determined by the same individual, depending on its perception, assessment and interpretation, subjective significance of this situation. That is why, it is essential to provide efficient and timely help to the families that suffer from such disorder.

Discussion of the Key Issues

Because of theoretical and practical research, it was determined that for mastering stress everyone uses their own strategy based on acquired personal experience and psychological resources – personal coping resources. In the theory of dominant behaviours important to have mechanisms for overcoming stress, which determine the development of various forms of behaviour and affect the degree of adaptation of personality to life crises. Dominant behaviour (coping behaviour, coping reaction) – forms of behaviour aimed at rational conflict or crisis through specific actions: information search, phased solution to the problem, seeking help, etc. Dominant can be determined as a coping result of interaction – conduct and meaningful resources.

Dominant Behaviour Features of Personality in Overcoming Crisis Conditions

Antsyferova (1994) has argued that there are three ways of domination of crisis:

1. Coping, aimed on evaluation, it's an attempt to determine a situation meaning and determine the value of the situation and put in place defining the strategies: cognitive, logical analysis, etc.

2. Coping, aimed at the problem, capture the critical situation, which has the aim to modify, reduce or eliminate the source of the stress.

3. Coping, aimed on emotions, is overcoming critical situations, the application of cognitive, behavioural efforts to reduce the emotional stress and maintain an effective balance. In this case, the

coping acts as a dynamic process, which is subjectivity, experiences and many other factors.

There is some coping notions of identity reaction, coping-strategy and coping-behaviour, they are freely used in literature where meaningful covers a broad range, from unconscious psychological defenses to informed and focused skill cope with stressful and troubling situations. Coping process includes successive stages of operation; the initial step is the formation of meaningful incentives. Any crisis suggests the existence of objective circumstances and definite attitude to her personality, depending on the degree of significance of the circumstances for her. This is accompanied by emotional and behavioural reactions of various nature and degree of intensity. The leading characteristics of the crisis is the psychic tension, considerable experience as a special internal work on overcoming life events or trauma, which is accompanied by a change in self-image, motivation, demand their correction and psychological support from the outside.

The goal of coping process is to develop coping behaviour, to overcome the stressful situation, eliminate psychological discomfort to find emotional stability. Overcoming is the attempt to face the difficulties of life by regaining the power and control over them. These are the efforts, which activate our inner and outer resources and capabilities and make people feel strong enough to cope with the problems. When stressed, a person mostly resorts to such forms of psychological adaptation as coping strategies and other mechanisms of psychological protection. The same events can be more or less stressful for an individual depending on their subjective assessment or what standard reactions are transmitted from adults to children. Coping strategy is effective when a person defines the situation as such that exceeds the routine energy expenditures and requires additional effort. When an individual as beyond their strength evaluates the requirements of the situation, overcoming will be in the form of psychological protection. In the process of psychological adaptation, coping strategies have compensatory functions, whereas psychological protective mechanisms provide decompensation. However, they give time for the mind to develop more effective methods of overcoming stress. In case of stressful situations, the coping process moves from reaction to intentionally made strategy

that creates behaviour. Note that the original concept of coping is being seen in the context of extreme situations, and then it spreads to the everyday stressful situations. In terms of stressful situations, the human psychological adaptation occurs mainly through coping strategies and mechanisms of psychological protection (Antsyferova, 1994). In modern psychological literature, the coping strategies are studied at different angles according to different activities.

Coping strategy is the strategy of coexistence with the difficulties and the settlement of relations with the environment. There are many options for adaptation to stress, such as:

1. The confrontation, confrontation or situation: the aggressive attitude of human in relation to the difficult life circumstances, when such situations are perceived as a hostile force to conquer or extermination;

2. Distance themselves from problems or postpone its decision, as a result of this variant device man contemplates the situation seem behind the glass from the side;

3. The strategy of self-control, the desire to regulate your feelings and actions, however excessive «settlement» their emotions leads to overexertion that can lead to the development of psychosomatic diseases;

4. Strategy of finding social support, appeals for help to other people;

5. Strategy of taking responsibility. It is chosen, as usual, by strong and mature personality, since it requires a recognition of one's own mistakes and their analysis in order to prevent a repetition;

6. Strategy of planned problem's solution, i.e. The development of the plan of salvation and clear compliance with its;

7. Positive reassessment of what is happening with the person, re-evaluating the stressful situations in a positive for her channel;

8. «Avoid (or moving) responsibility», attempt to escape the situation or avoid the communication.

Coping strategies are an adaptive form of conduct that maintains a psychological balance in distress; these are methods of psychological activities and conduct that are done deliberately and aimed at overcoming the stressful situation. Observation and survey of distressed people found that everyone has their own unique combination of resources to adapt. This combination includes six

basic features or parameters that make up the core of the individual style of overcoming:

– Beliefs and Values – B;
– Affect and Emotion – A;
– Social sphere – S;
– Imagination and creativity – I;
– Cognition and Thought – C;
– Physiological and Activities – Ph.

This model is called «BASIC Ph». The combination of all six parameters makes up an individual coping style.

It is important to note that everyone has his or her own predominant methods of overcoming crisis in different periods of life. Throughout our lifetime, some of these techniques develop and are perfected, and others remain underdeveloped due to different circumstances of our lives. It is important to focus attention on successful cases of the use of internal resources. Many people find help in appealing to the beliefs and moral values to overcome stress and crisis. These are not only religious beliefs, but also political beliefs, a sense of hope and philosophic «sense», a sense of mission and purpose, the need to find their identity and feeling of belonging to their people. Others can adhere to the emotional or affective modality – they express their own emotion (crying, laughing, a story about their experience), or use non-verbal techniques – drawing, reading, sewing, writing. Some choose social resources and find support in their belonging to a certain group, organization or profession, in fulfilling the tasks and performing certain social roles.

Sometimes people use imagination; they try to distract with the help of creative imagination by inventing unreal solution based on improvisation and positive thinking. Some people use cognitive-behavioural method of coping. Cognitive strategies include evaluation of information, problem solving, analysis and realistic forecasting, the internal language of support, favourite activities. «Ph.» type people respond and fight through the physical, bodily movement. Their methods include relaxation, desensitization, meditation, physical exercise, and physical activity. Energy consumption is an important part of many types of internal struggles. It also includes eating, sleeping, sex, etc.

Coping-behaviour – its individual meaning of solution a difficult living situation that is of high importance, and is connected with the internal features of the personality and the conditions of social support. That is, meaningful acts of the variable which depends on three factors – features adoption situations, personal and social resources. They are shared by the authors of the different psychological areas to study the nature of meaningful-behaviour is that the latter acts conscious, non-automatic, active, purposeful form of effective adaptations to the requirements of stressful situations.

Coping is stabilizing factor that helps the individual to maintain a psychosocial adaptation in the period of exposure to stress. Coping strategies are adaptive form of conduct that supports a psychological balance in distress; methods of psychological activities and conduct that are produced deliberately and aimed to overcome the stressful situation. Burlachuk and Korzhova (1998) here establish the coping strategy that uses the identity and can be divided based on the following criteria:

1. Emotional problematic:

– Emotional focusing coping, aimed at crisis emotional reactions.

– Problematic focusing coping, aimed at how to deal with the problem or change the situation that caused the stress.

2. Cognitive-behavioural:

– The hidden inner coping – cognitive challenge, the goal of which is to change the unpleasant situation that causes stress.

– «Open» behavioural coping – oriented on behavioural action; used in coping-strategy, observed in the behaviour.

3. Successful coping:

– Successful coping – is used to design strategies that lead eventually to overcome the severe situation that caused the stress.

– Unsuccessful coping – is used unconstructive strategies that prevent the overcoming the severe situation.

Problem-oriented coping associated with human attempts to improve relations «person-environment» by changing the cognitive evaluation of the situation, for example, search for information about what to do and how to enroll, or by keeping yourself from impulsive or hasty action. Emotionally oriented coping includes the thoughts and actions that have the aim to reduce physical or psychological stress. These thoughts or actions give a sense of relief, but does not

aim to eliminate the threatening situation, and just give the person the opportunity to feel better, more comfortable. The same events can have different stress loads depending on their subjective assessment or what standards responding adults living children. Meaningful-reaction is triggered when a person defines the situation as such that exceeds the daily energy expenditures and requires additional effort. Moreover, when the requirements situation is evaluated by the person as back-breaking, then bridging can occur in the form of psychological protection.

The term «protection» first was appeared in the works of Freud to indicate «all the techniques that I use in the conflict and that might lead to neurosis». Primary concepts, psychological protective mechanisms are congenital and act as a mean of solving the conflict between consciousness and unconsciousness. According to Freud, the goal of protection is the weakening of intrapsychic conflict (tension, anxiety), the stipulated contradiction between instinctual rather than pulses of the unconscious and the interiors environmental requirements arising in because of social interaction. The inability of individual resolve inner conflict causes the growth of internal tension. In such moments there are arisen the special psychological mechanisms of protection, which protect the consciousness of personality from the unpleasant, traumatic experiences. In the modern notion, the protective mechanisms represent the products development and training, which are in the subconscious, they run into a situation of conflict, frustration and stress. The unified classification of psychological protection mechanisms does not exist, although there are numerous attempts of their grouping on different grounds.

There is a typology of the protection mechanisms in terms of their maturity in the meaning of «primitiveness-maturity», this classification has gained wide popularity and to this time is in demand.

– I stage – psychotic mechanisms (reality refusing, corruption, illusive projection);

– II stage – immature mechanisms (fantasy, projection, withdrawal, compulsiveness, etc.);

– III stage – neurotic mechanisms (intellectualization, reaction formation, offset, disassociations);

– IV stage – mature defences (sublimation, altruism, suppression, anticipation, humour).

McWilliams (2004) declared that the defence mechanisms, which are seen as primary, immature and primitive, typically include those, which deal with fire-between his actually «I» and the outside world. According to Berezin (1988), the psychological protection mechanisms provide regulation, orientation behaviour, reduce anxiety and emotional stress. He distinguishes four types of psychological protection mechanisms, they are:

1. Prevent an understanding of the factors that cause the anxiety that those factors that cause anxiety are not perceived or are not realized (displacement and denial).

2. Allow you to fix the alarm to a certain stimulations (fixation of anxiety) that anxiety is associated with some specific object not associated with the reason that caused the alarm (transfer, some form of insulation).

3. Reduce the level of motives (impairment of output needs) – i.e. a reduction of anxiety can be achieved by reducing the level of motives, and depreciation of the original needs (regression, hyper compensation).

4. Modify anxiety due to the formation of sustainable concepts (conceptualization) – i.e. ideatoric processing of alarms, the result of which is the ideas that are behaviour personality (projection, rationalization).

Numerous authors suggest a close relationship to coping and mechanisms of psychological protection. Some authors consider the psychological protection with «intrapsychic coping» or «learning mechanism of inner anxiety»; other authors include meaningful to external, behavioural manifestations of psychological protection mechanisms. The proximity of coping concepts and mechanisms of psychological protection necessitate their differentiation, the criteria which had been offered by Haan (1963). According to the author, the meaningful is dynamic option, which uses the individual knowingly and actively aims at changing the situation (Haan, 1963). Unlike coping, the psychological protection mechanisms are static «parameters» that implement the passive mechanisms dependent on intrapsychic activity and aimed at alleviating the mental discomfort.

Thus, there is a substantial difference between the coping and protective psychological mechanisms. Protective mechanisms, with the aim of overcoming the psychological tension and anxiety, in most cases they distort, distort information. Coping strategy produced intentionally pushing the personality to adapt, handle, overcome problem situations or avoid them. The meaning of protective mechanisms is the change of the world image on the principle of pleasure (unconscious meaningful). Protective mechanisms are more annoying, rigiditive, they distort the reality among domestic researchers term «the psychological protection mechanisms and the mechanisms for implementation» (coping-behaviour) are considered as the most important form of adaptive processes and individual response to stressful situations, which complement each other (Muzdybaev, 1998). The weakening of mental discomfort is carried out in the framework of the unreported activity of mentality through the mechanisms of psychological protection. Coping-behaviour is used as a strategy of actions of the individual that is directed at eliminating situations of psychological threat. Each person with an affective state is its own unique combination of resources, adaptation, as well as its own strategy of behaviour and ways of action in stressful situations. This combination makes up the core of the individual style of fighting distressed identity.

These factors form the mental mechanisms of regulation to overcome stress and characterize the essence of this process. Resources are all the things that identity uses, to meet the requirements of the environment. Two major classes of resources are distinguished:

– personal (psychological) is the skills and abilities of the individual;

– environmental (social) – resources that reflect availability for individual

assistance in the social environment (instrumental, moral, emotional).

A more detailed classification allows you not only identify specific resources (e.g., cultural, political, and institutional resources), but also to identify their source. Briefly describe the composition of personal resources, it should be noted that

psychological resources include cognitive, volitional, emotional, psychomotor and other psychological properties of the person. Personal resources include a variety of properties, features, personality, and influence on the regulation of behavior in tense situations of life and reflected in the attributes of self-control, self-esteem, sense of self-esteem, motivation, etc.

Professional resources are the level of knowledge, experience, individual style, which allow regulating the professional conduct of personality. The level of physical and mental health and functional reserves of man determine physical resources. It could be said that, sometimes extremely meaningful role of material resources that provide access to information, legal, medical and other forms of professional assistance (Nartova-Bochaver, 1997).

Personality and psychological resources are the basis for the formation of strategies for struggling behaviour. Their functional orientation consists either in preventing or eliminating or reducing stress, or to restore the original state. At different stages of the learning process, the identity of the using different strategies, sometimes even combine them. While there is no such strategies would be effective in all difficult situations. Which methods to use, the personality solves himself, based on their individual psychological characteristics, life experiences, evaluate the significance of the situation, what is going on, and other factors (Rodina, 2011).

Features of Social and Psychological Adaptation and Development Skills to Overcome the Crisis Situation in Individuals that have experienced the Impact of Traumatic Events of Armed Conflict

Stress can lead to a crisis because of the repeated failure to get rid of it. A person can hardly handle this condition, especially when he/she lacks inner strength and resources. Then the stress turns into a crisis, because the person repeatedly follows the same unhelpful strategies to get out of the plight. In other words, a person gets stuck with a single reaction, one method of overcoming the trouble, which is not working. In this case, the crisis develops due to «obsession» and lack of resilience (Kokun, Ahaiev, Pishko & Lozinska, 2015).

The negative emotions are so overwhelming that a person cannot cope with them alone. Life goals disappear, a person is not able to see the future or set other objectives, to find a new meaning of his/her life. As a result, adapting to the new reality becomes complicated.

The most vulnerable category is the military who have personally taken part in combat actions. To diagnose PTSD the American Association of psychiatrists uses a list of symptoms and list of types of conduct described in Frank Puselìk's Program of Counseling Vietnam Veterans. These symptoms are characteristic of any soldier in any armed conflict regardless of the name of the conflict, and regardless of the country of the conflict:

1. Recurrent visions of the battle:

– Recurrence of stressful emotions (including images, thoughts and perceptions) concerning certain events (flashbacks).

– Recurrent nightmares about past events.

– Recurrent actions or illusions that the traumatic experience is repeating (flashbacks).

– Intensive psychological stress triggered by external or internal factors (things, events that prompt certain reactions).

– Physiological sensitivity to triggers.

2. Avoidance / Emotional numbness:

– Attempts to avoid thoughts, feelings or conversations associated with the traumatizing experience.

– Attempts to avoid certain activities, places or people that cause traumatizing memories.

– Inability to recall an important aspect of the traumatic experience.

– Significantly reduced interest or lack of participation in important activities.

– A sense of aloofness or estrangement from others.

– Restrained emotional feedback.

– A subjective perception of transience of the future.

– Inability to stand crowds of people.

– Repeated deep depression / Cynicism.

3. Increased agitation / Marked vigilance:

– Inability to fall asleep easily and to have a lengthy dream.

– Grumpiness or outbursts of anger (irritable temper)

– Difficulties with concentration of attention.

– Hyperactivity.

– Excessive shudder as a reaction to what is happening around.

– Constant talks about the war / never speaks about the war.

– Excessive need for safety.

4. Formation of beliefs:

– Has the war changed my thoughts and perceptions of myself? Could anything change how and what others think about me? Could anything change my thoughts about the future?

– Has the war experience changed my thoughts and feelings towards others?

– Has the war experience changed my understanding of what is right and what is wrong?

– Has the war experience changed my understanding of what is good and what is bad?

Anyone who has returned (arrived) from the zone of armed conflict can have unwanted memories of the war; can have problems with adapting to a peaceful life. However, experts outline a number of features of the combat situation, which the soldiers experience, that have a particular impact on the human psyche. These conditions «exhaust» of central nervous system and lead to the so-called «combat trauma» (Melnyk & Volynets, 2015):

– Perceived threat to life, the so-called biological fear of death,

– Injury, pain, disability;

– Powerful and prolonged stress which a combatant experiences; it is accompanied by the psycho-emotional stress due to the death of fellow combatants or because of the necessity to kill other people;

– The impact of specific factors of the combat environment (deficit of time, accelerating the pace of action, abruptness, uncertainty, novelty);

– Such problems as lack of proper sleep, water and food scarcity;

– Unusual for the combatant climate and territory (hypoxia, heat, excessive insolation, etc.).

The psychological consequences of the war has been well documented throughout the history; they are known under such names as nostalgia, the syndrome of «heart of a soldier», shell shock, battle fatigue, and most recently – combat stress (Syropiatov, 2015).

People who have been affected by traumatic events of the armed conflict may suffer from maladaptation. This condition typically hampers social functioning and productivity, it occurs during the period of adaptation to the significant changes in life or due to stressful life events. Manifestations of diverse and include low mood, anxiety, agitation (or their combination); perceived inability to cope with the situation, to plan one's actions or continue to stay in the present situation; tearfulness; excessive vulnerability and sensitivity to factors which did not previously cause similar reactions; decreased ability to take care of the children. One can also observe decreased productivity of everyday routine; the person may have a penchant for drama and flashes of aggressiveness. The traumatic experiences result in post-traumatic stress disorder. This condition can be characterized by repeated nightmares or intrusive memories of the experienced psychotraumatic events. This is combined with a desire to avoid anything that might evoke memories of the trauma. Such cases are typically characterized by the symptoms of increased agitation, general anxiety, uncontrolled anger, depression, emotional disorders characterized by desire for isolation and limited contact with the out world, irritability, insomnia, difficulty in concentrating attention. These symptoms are often combined with sexual disorders, suicidal thoughts, alcohol or drug abuse. The common symptoms also include sleeping disorders such as superficial night sleep, nightmares that repeat the psychotraumatic experience. A particular symptom of repeated experiences of stress is instant, unprovoked reconstruction of the traumatic situation which seems pathologically authentic and full of sensual details, combined with acute flashes of fear, panic or aggression that are provoked by this unexpected experience of trauma. One can clearly detect such symptom as avoidance – the desire to get rid of any thoughts, emotions and memories of the trauma. It results in the feeling of remoteness, estrangement from others, which is expressed in the desire to lead a reclusive, isolated life. The person loses interest in the former life values. The intensity of emotions is subdued, even love for the nearest and dearest people. These symptoms become the source of additional trauma for the person. The symptom of psychogenic amnesia is also a widespread disorder, which involves memory problems because of severe psychological conflict or acute emotional

stress. There are uncontrolled outbursts of anger for no apparent reason that sometimes turns into fits of auto-and hetero aggression. Many people with post-traumatic stress disorder have symptoms of the hypertrophied, inadequate vigilance. Depression is well spread. A particular symptom is the inconsolable guilt concerning the deceased, which is experienced by the people who managed to survive but lost a loved one, have witnessed the death of other people («if only we have left on time», «Why haven't I forced him to go with us?»). One can also have social directed experiences, such as frustration with the authorities who failed to prevent the psychotraumatic event (Yena, Masliuk & Serhienko, 2014).

Formation of Resilience in the Children who have been got Traumatic Experience as a Result of the Armed Confrontation in Ukraine

The research of the modern psychologists is focused on the studying of the consequences of the traumatic experience's effects on the individual personality traits in the following groups of people: the children of preschool and junior school age, teenagers, pregnant women, military, women – victims of raping.

Traumatic stress is a normal reaction to abnormal events that go beyond the normal life experience of a person. Burmystrova (2006) has argued that the range of people who can experience the traumatic stress is quite wide.

According to German scientists, the traumatic experience in the past has far-reaching consequences. The study of the Theodore Fieldner Foundation, the results of which are presented in Trauma and Gewalt journal, showed that depression or anxiety neurosis often develop, chronic pain and asthma occur.

In general, there are five main types of traumatic events, which are often associated with mental and physical suffering in the future. They are emotional disregard, emotional and physical abuse, sexual aggression and sexual abuse. According to Olena Schifferdeker, a member of the science department, research and development in the Theodore Fieldner Foundation: "As the study showed, about 90% of the examined patients of psychiatric or psychosomatic institutions experienced the traumatic experiences in their lives".

It includes not only the direct participants of the events, but also the members of their families, as well as those who were near the event, or watched it through the media, or has even heard the stories about events. Especially it concerns the children, given their limited life experience, the vulnerability and immaturity of the child's psyche.

There is not any traumatic childhood; the question is only in the intensity of this trauma, its duration and repeatability. These are those factors that largely determine the further formation of the child's personality (it is still necessary to add the biological, genetic constituent, social environment that either helps the child to cope with a psychological trauma and minimize its consequences, or, on the contrary, increases it).

There are its own laws in the early psychological traumatization:

1. The psychological trauma is always unexpected. It is impossible to prepare for it, it immerses a child in a feeling of helplessness, inability to defend himself: very often at the time of trauma the child falls into emotional stupor, without feeling strong feelings, not having the ability to anger or fight back. The child does not know how she relates to what is happening with her, the emotionality is included only later and she can survive the pain, horror, shame, fear, etc. Strong, that doesn't digest by the psyche, the trauma can be oust and will not be mention for years, but its influence continues to work and determine the human behaviour in adult life.

2. A psychological trauma occurs in a situation where the child is not able to manage it. She appears defenseless in the face of the changes, which the trauma brings into her life. A child, who has experienced a psychological trauma, practically does not tolerate possible vagueness. She tries to organize her world by carefully considering the possible steps, consequences and painfully react to any changes. The anxiety becomes the eternal companion of the child, the desire to control the around world becomes an urgent need.

3. Child trauma changes the world. The child, before the trauma, believes that the world is arranged definitely: she is loved, she will be always protected, she is good and nice, and people are kindly adjusted to her and so on. Trauma can make its hard adjustments: the

world becomes hostile, a close person can betray or humiliate; I must be ashamed of my body, it is ugly, it is not worthy of love ...

4. In the further life, there is a constant retraction. A child, even growing up, unconsciously «organizes» and recreates the events that repeat the emotional component of the trauma. If in its childhood it was rejected by coevals, then in its further life, she will be so interact with the outside world, which will inevitably cause rejection, rejection of others, constantly suffer from it.

5. The traumatized children, growing up, cannot afford to be happy because happiness, stability, joy, success is what happened to them before the trauma has happened. They were happy, joyful and satisfied, when their world suddenly changed catastrophically for their childish minds. From that time, happiness and calmness for them is a feeling of the inevitable catastrophe that will surely arise and cause pain.

6. Trauma is not always one key event. It could be a constant psychological pressure on the child, an attempt to redo it, a critique in which she constantly lives, her feelings of needless for parents, a constant feeling of guilt for the fact that she lives and for everything she does. A child often grows up with a feeling of inferiority, somehow (sometimes bad realises) the message: «I have to please», «everything around is more valuable than me», «nobody has no deal to me», «I interfere with everybody, I live in vain». All these thoughts cripple the human psyche and create retraumatizing reality. These links in adult life are firmly adhered to the psychical framework; a person cannot even remember how to live without them.

7. The earlier trauma, the harder the process of treatment. Early traumas are badly remembered, early built into the child's psychological constructs, changing them and asking for the new conditions on which the psyche functions and leads to the fact that the world seems to be exactly what it was from a child's early childhood perceived by a child. Moreover, it is impossible to simply find and remove a damaged or traumatized construct from the human psyche, due to the integrity of the design (Romanovska & Ilashchuk, 2014).

Because of the gap in relationships with close adult, there may be negative changes in the child's behaviour. When the attachment

object (family as a sphere of attachment formation) is lost, there is a violation of a child's attachment. Brish (2012) has determined the following types of it:

– Negative (neurotic) attachment – the child constantly looks for attention from adults, even negative, provoking punishment, annoying adults.

– Ambivalent attachment – the child constantly demonstrates a double attitude to a close adult: then caresses to him, then roughens, avoids. There are no compromises in the relationships, and the child cannot explain himself his behaviour and suffers from it.

– Avoiding attachment – the child is locked, downcast, does not allow trusting relationships with adults and children. The main motive for such behaviour is «nobody can be trusted».

– Disorganized attachment – the child has learned to survive, breaking all the rules and boundaries of human relationships. She does not need to be loved – she wants that everyone was afraid of her. This type of attachment is characteristic for children who have been subjected to ill-treatment in relation to themselves.

Traumatic events can cause different behavioural features in children, feelings that are important to track and adequately help the child to survive, manifest and work on them. These can be a sense of insecurity, fear of the future, anger, aggression, shame and guilt, alienation and isolation from the environment, sadness. Children may have problems with learning, attention, the ability to memorize information, psychosomatic disorders (such as logoneurosis (stuttering), enuresis (urinary incontinence), bronchial asthma, neurodermatitis, etc.). Paramjit and O'Donnell (2003) have argued that there are certain features of children's behavioural manifestations who have received the traumatic experience, taking into account age.

The preschool children (under 6 years) are in close contact with their parents and cannot independently resolve certain questions, they largely depend on the parents' decision or support. Parents for a preschool child are basis of the security and the basic figure for satisfaction of needs, including the need for communication with friends, the need for physical contact, etc. Children of preschool age

often have diffuse and somatic reactions to traumatic events. They can think by mistake that this event is their fault. It can lead to so-called "magic thinking" (for example, a child may think, "If I am beautiful, it will not happen") and the formation of a feeling of own guilt. The children of this age often show their emotional reactions to injury in the form of sleep problems, they can have nightmares. They may have anxiety and disturbances that are manifested in "adhering to the adults" (the child is afraid of staying alone in the room, constantly in need of attention, afraid of falling asleep, etc.) (Paramjit & O'Donnell, 2003).

Children (7-11 years) begin to be more afraid after an injury, to be ashamed and to show increased anxiety. There can be a regressive behaviour (a return to the previous stages of development), which includes enuresis, sucking a finger, baby babbling, the desire to keep a toy along with them. The loss of appetite, complaints of abdominal pain, headaches, and dizziness can develop in the children of this age. There are also common educational problems, such as inability to concentrate, refusal to attend school, aggressive behaviour at school.

The teenagers (from 12 years old) usually hold a sense in himself, which can lead to depression. At the same time, they may pretend that "everything is fine". The children can try to spend less time with their family, and more time with other people, trying to be active and thus manage their fears. For such children, there is a risk of being included in different groups. In high stress, the important place belongs to the understanding of the adolescent as a person, awareness of his place in society, the formation of reflection skills, the ability to take into account the needs and feelings of the environment, possessing methods of constructive conflict resolution and self-regulation skills. In dealing with a child, it is important to understand the essence of his problems. Plan the work together with parents. However, the parents and the nearest surrounding of the child can become for her the resource surrounding – such that, it will help to survive the trauma and adapt to the new conditions (Bohdanov et al., 2017).

The children, who have survived the trauma, as a rule, are characterized four peculiarities:

1. Visual obsessive, oppressive memories of traumatic events that are constantly being repeatedly experienced in nightly horrors.

2. Behaviour that is again repeated (repeated play of a tragic episode during a game, reproduction of essential parts in the game or behavioural idiosyncrasy).

3. The specific fears that are associated with trauma, avoidance of incentives or situations associated with an event or reminiscent of the trauma.

4. Change in attitude towards people, to different aspects of life and to the future.

As a result, we consider it is important to indicate the main types of immediate or delayed reactions that are shown by children, because of the experience of a traumatic situation:

1. Expressive reactions, when the child shows the strong emotions, can cry, shout, swear, laugh, swing, but the main thing – he cannot control his emotions.

2. Controlled reactions, when the child tries to restrain himself, he may look superficially calm outside.

3. Shock reactions, when a child, who has survived an acute traumatic situation, as if he shocked, depressed, it is difficult for her to understand what had happened to her.

Such types of reactions can change each other, appearing in a certain type of behaviour. The trauma does not happen by itself. She immerses everything deeper and deeper – the child tries to manage with the situation through the psychological mechanisms of defenders.

Paramjit and O'Donnell (2003) are determined the most typical mechanisms of psychological protection in children and adolescents. They are as follows:

1. Regress to Early Child's Behaviour. In a crisis, this protective mechanism manifests itself in the return of a child (or teenager) to more primitive means of reaction – the child becomes whining, capricious, irritating, not self-contained, etc. Some children and adolescents might be observed enuresis, biting nails, sucking fingers and so on. Some traumatized children receive the reassurance from abundant food and drink, smoking. The predominance of regression as a psychological defense is often observed in the infantile

adolescents, as well as in adolescents with mental retardation. At the age of 5-11 years, the regression is manifested in increased dependence on the immediate surroundings and weaker control over impulses and aspirations. Regress also shows itself in obsession, the development of sadomasochistic features in relation to others (the child can act both in the role of being offended and in the role of the offender), aggressiveness, etc. In a situation of violence, regression is a sign of mental exhaustion due to the duration of stress.

From the age of 12-13 years, the tendency to regress manifests itself as a norm of the age-old teenage crisis. There are normally differences between high vigorousness and activity at one time, and fatigue and passivity in the next, when the internal conflicts exhaust the energy resources of the organism.

The regressive types of the adolescents' protection in a crisis condition are the dreams and fantasies, that is, the replacement of the action with the expectations of the reality magical permission, when they would solve all difficulties.

2. Identification with the aggressor. In behaviour, the child demonstrates those feelings and qualities that are inherent in a person who has shown the aggression or abuse about a child. This kind of psychological protection is often observed in infantile adolescents with unstable self-esteem.

3. Suppression I – it is another commonly used mechanism of protection for children aged 5-11, often combined with passivity. A child avoids new life experiences that can carry a risk and challenge, chooses a narrow, but safe area of activity with a minimum number of interests, she is pre-pessimistic about the outcome of her actions. Because of this, often, the ability to study is suffered in such children. At this age, the sense of self-esteem is still very fragile, and although the child's ambitions are high, her ability to defend itself with humour and irony has not formed yet. In this connection, the irony of adults and the actual or predictable critique of coevals, friends often become unbearable.

4. The denial is protection from unpleasant reality due to the child's refusal from her realistic and adequate perception, from awareness of her own problems. Denial is a cardinal psychological defense for all external injuries. The teenagers with this type of psychological protection do not take the source of anxiety as a real event. In the structure of the personality, as a rule, they are tended

the inadequately overestimated self-esteem, they do not tolerate criticism, selfish; actively deny the existence of difficulties, difficulties in their lives.

5. Designing is the attribution to others their own, desires and intentions that are denied in themselves. The projections can be seen in their drawings, games, fairy tales, and stories in the children, who have survived violence. Often under the influence of this type of protection, the children accuse others of that, they feel themselves, but they do not want to admit themselves.

Also it must indicate that in different children's age groups symptoms of stress will be different. So, for children of nursery and preschool age will be characteristic (Sapiha & Liach, 2017):

- Anger;
- Anxiety;
- Problems with eating and sleeping, including nightmares;
- Fear of loneliness;
- Irritability;
- Return to child behaviour;
- Shaking from fear;
- Uncontrolled crying;
- Autism

Children of junior school age will have the following features:

- Distrustfulness;
- Complaints of headaches and pain in the abdominal cavity;
- Feelings that he is not loved;
- Lack of appetite;
- Sleep problems;
- need to go to the bathroom frequently;
- Indifferent attitude towards school and friendship;
- Emotional experience about the future;
- Autism.

The emotional experience of stress by adolescents will have the following symptoms:

- Anger;
- Loss of illusions;
- Distrust to the whole world;
- Low self-appraisal;
- Headaches and stomach ache;
- Rebellious behaviour.

The Centre of Psychical Health and Psychosocial Support of NUKMA in cooperation with the psychological service and with the support of the UNICEF Representative Office in Ukraine, in summer 2016 conducted a qualitative research among schoolchildren who live in the front-line zone. The idea was to find out what psychological qualities help the child to grow and to keep psychical health in an active military conflict. From the point of children's view these are (Sapiha & Liach, 2017):

- Ability to communicate;
- Feeling of happiness;
- Helping others;
- Family support.

Conclusion

In this article, it was investigated, that for mastering stress everyone uses their own strategy based on acquired personal experience and psychological resources. It is also considered such concepts as identity reaction, coping-strategy and coping-behaviour. It is researched that the goal of coping process is to develop coping behaviour, to overcome the stressful situation, eliminate psychological discomfort to find emotional stability. Observation and survey of distressed people found that everyone has their own unique combination of resources to adapt. In this article, it is given the classification of the resources which identity uses, to meet the requirements of the environment. There was defined that the most vulnerable category is the military who have personally taken part in combat actions. It was characterized five main types of traumatic events, which are often associated with mental and physical suffering in the future. They are emotional disregard, emotional and physical abuse, sexual aggression and sexual abuse. In the course of this problem studying, it was identified those factors that largely determine the formation of the child's personality. It was also discovered that traumatic events could cause different behavioural features in children, feelings that are important to track and adequately help the child to survive, manifest and work on them. In the article, it was also given, the most typical mechanisms of psychological protection in children and adolescents.

The obtained results shout to the another results of a series of viability's studies, that conducted in other countries where armed

conflicts occur. Vitality or resilience is a modern concept in foreign schools of psychology and sociology and means the broadest understanding of the person's ability to resist the influence of adverse external factors. Using the systematic approach in maintaining the life of the individual, provides for the inclusion of mental and actual impacts the environment properties of the personality, mechanisms of regulation of stress mechanisms that determine their specificity. The psychological support, assistance will be only effective when they are multilevel and take into account both the influence of the social environment and the individual factors that affect the personality.

According to experts, absence of the concept, national programme and the system of rehabilitation measures, persistently aggravate the problem of mental disorders, exponentially increasing its negative social, economic and political consequences.

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Sociodemographic variables and severity of depressive symptoms in Primary Care patients

Introduction

Major depression is estimated to be among the most burdensome disorders. According to WHO (2017), there were 1, 878, 988 cases (5,1% of population) suffering from depressive disorders in Poland in 2015. In 2015, depressive disorders led to a global total of over 50 million Years Lived with Disability (YLD) worldwide, and 330, 423 total YLD in Poland.

It is estimated that depression and depressive symptoms may be even more common in specific populations, for instance, in patients suffering from somatic diseases (Barnett et al., 2012; Pakriev et al., 2009). The relationships between depression and somatic illness are complex, and, in addition, the mechanisms underlying the co-occurrence of depressive and somatic illness symptomatology are still not fully understood. Depression is a multi-system disease, i.e. both its etiology and its course are associated with many biological factors (e.g. endocrine or immune (Cubała et a., 2006)). The mere fact of the presence of depressive symptoms increases the risk of death for reasons related to the cardiovascular system (Lahtinen et al., 2018; Marwijk et al., 2015), as well as the risk of general mortality regardless of the underlying disease, especially among the

elderly and in the course of treatment in a medical facility (e. g. Chowdhury et al., 2019). Pathophysiological processes associated with somatic disease may adversely affect depression (Kapfhammer , 2006). In particular, poorer response to antidepressant pharmacotherapy was reported in patients with co-occuring somatic illness, as well as incomplete remission or a persistent chronicity of depressive symptoms (Keitner et al., 1991; Koike et al., 2002).

The comorbidity of depression and somatic diseases is associated with much higher incidence of suicide attempts compared to the general population. The risk associated with suicide is all the greater, the more the symptoms of the disease are more difficult for the patient (disability, pain) (WHO, 2015), and it is also true for diseases that do not pose a direct threat to life, such as psoriasis or acne (Gupta et al., 2017).

Several studies showed that adverse health-risk behaviors, such as sedentary lifestyle, smoking, and over-eating are common in patients with major depression. These kind of behaviors may lead to a higher risk of diabetes and heart disease (Goodman, & Whitaker, 2002; Rosal et al., 2001).

Primary health care is where, in the first place, many ill people are looking for medical help. Studies conducted in Poland, covering the group of Primary Care elderly Patients emphasize the need to carry out screening tests for depression in this group of patients. A study among Polish patients showed that the severity of depressive symptoms was associated with the number and severity of somatic complaints (Kujawska-Danecka et al., 2015). Also, in 2017 Polish Psychiatric Association with Polish Society of Family Medicine and College of Family Physicians in Poland developed the guidelines for diagnosing and treatment of depressive disorders in primary health care patients population (Piotrowski et al., 2017).

All these data point to the fact that the depression and the severity of depressive symptoms in the group of people suffering from somatic diseases can be a very important factor associated with the course or prognosis of the disease, especially in primary care.

Purpose of the study

The aim of the study was to evaluate the severity of depressive symptoms and their relationships with sociodemographic variables in Primary Care Patients in Poland.

Methods

Participants

The study involved 179 primary care patients (130 women, 48 men). Age ranged from 18 to 65 years (M = 44.75 SD = 13.93). More than half of participants were married (60.3%), 22.3% were single, 9.5% were divorced, and 7.8% were widows / widowers. Less than 65% of participants in the study were professionally active, 14.5% were retired, 9.5% continued their education, 7.3% were unemployed and 3.9% were on old age pension. Less than half of the respondents (48.6%) had secondary education, 33.5% higher, and 11.7% vocational and 6.1 elementary education. The majority of respondents lived with their families (85.5%), 14.5% lived alone

The patients were excluded from the study if their somatic condition was too severe to enable them to fill in questionnaires. The exclusion criteria were other co-occurring mental or neurodegenerative disorders (evidenced in the patient's medical history) and refusal to give informed consent. All participants gave informed consent for participation in the study.

This study was conducted according to the guidelines of the Declaration of Helsinki. The participants were informed about the study protocol and their rights, and written informed consent was obtained from each participant.

Measurements

The participants completed the following self-report measures:

– a questionnaire inquiring about sociodemographic and clinical variables (gender, age, marital status, education, occupational activity, residence, other co-occurring diseases)

– Beck Depression Inventory (BDI) – original version by Beck, Ward, Mendelson, Mock and Erbaugh (Beck et al., 1961), Polish version: Parnowski and Jernajczyk,(1977). It is a self-rating scale, which allows assessment of the presence of depressive symptoms

over the specified period of time. It contains 21 depressive symptoms marked A to U, the severity of which is described by four statements. Each statement is assigned a score from 0 to 3 points. In this tool, apart from the global score, two indexes can be calculated (affective-cognitive and somatic symptoms) (Łopuszańska et al., 2013). Based on the sum of the points of the entire BDI scale, the intensity of depression was determined. BDI <10 indicated no depression, BDI ≥ 10 and <20 points – for mild depression, while BDI ≥ 20 and <30 points – moderate depression. The score 30 and above indicated severe depressive symptoms (Łopuszańska et al., 2013). The reliability coefficient of the BDI global score in our study was high (Cronbach's α=0.82), the reliability coefficients of the affective-cognitive and somatic symptoms indexes were satisfactory (Cronbach's α=0.77, and 0.62, respectively).

Statistical methods

Due to the nature of the collected data, statistical analyses were performed using non-parametric tests (Kruskall Wallis H Test, Mann-Whitney U test), chi^2 and frequency analysis in the IMAGO PS software package.

The study protocol was accepted by the Bioethical Committee at the University of Economics and Human Sciences in Warsaw.

Results

Severity and Distribution of Depressive Symptoms in the Sample

The BDI global scores obtained in the sample ranged from 0 to 32. The mean BDI score for the whole sample was 8.51 (SD=6.25). The scores for the cognitive-affective index ranged from 0 to 18, with the mean score of 4.75 (SD=4.12). The scores for the somatic symptoms index were within the range of 0 to 15, with the mean 3.77 (SD=2.88).

One-hundred-and-twelve (63%) patients obtained the global BDI scores below the threshold for clinically significant depressive symptoms (BDI<10). Fifty-seven (31%) of patients had the global BDI scores within the range diagnostic for mild depressive symptoms (10≤BDI≤19). Eight (5%) patients scored within the range for moderate depressive symptoms (20≤BDI<30), and 2 patients (1%) reported severe depressive symptoms (BDI global scores ≥30) (Figure 1).

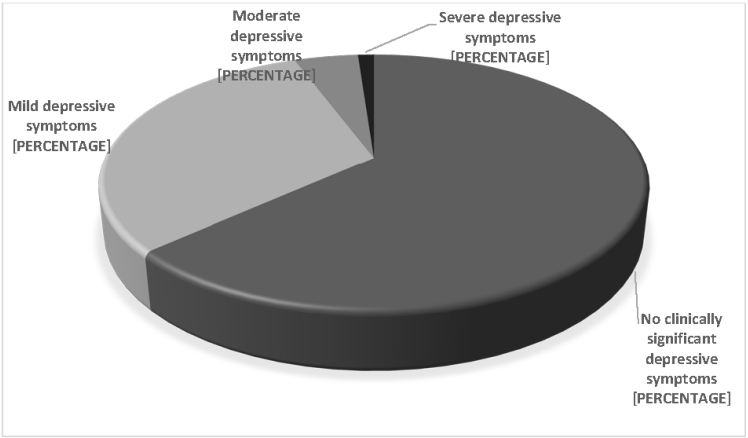

Fig. 1. Distribution of depressive symptoms in the primary care patients sample

Gender and Depressive Symptoms

No statistically significant differences between male and female patients were observed in the mean BDI global scores nor in the BDI affective-cognitive and somatic symptoms indexes (Table 1). The frequencies of men (N=16; 33%) and women (N=50; 39%) whose scores fell within the range diagnostic for clinically significant depressive symptoms (BDI≥10) were not statistically different (chi^2=0.395, *P*=0.530).

Table 1

Gender and the severity of depressive symptoms (the mean BDI scores)

BDI scores	Men (N=48)		Women (N=130)		*U*	*P*
	M	SD	M	SD		
BDI global score	7.71	6.47	8.78	6.17	2792	0.281
BDI cognitive–affective index	4.42	4.22	4.85	4.11	2878	0.426
BDI somatic symptoms index	3.29	3.07	3.92	2.80	2658.5	0.128

BDI-Beck Depression Inventory

Age and severity of Depressive Symptoms

In the next step the sample was divided into five subgroups with different age (table 2).

Table 2

Age and the severity of depressive symptoms (the mean BDI scores)

	>30 (N=37)		31 – 40 (N=30)		41 – 50 (N=35)		51 – 60 (N=52)		>60 (N=25)		Kruskal-Wallis ANOVA	
	M	SD	M	SD	M	SD	M	SD	M	SD	H	P
BDI global score	8.89	7.04	6.30	4.69	7.06	6.02	9.98	6.58	9.60	5.45	10.77	0.029
BDI cognitive–affective index	5.38	4.55	4.33	3.71	3.86	4.02	5.13	4.15	4.76	4.04	3.80	0.433
BDI somatic symptoms index	3.51	3.33	1.97	1.71	3.20	2.46	4.85	2.95	4.84	2.41	30.29	0.000

BDI-Beck Depression Inventory

Main effect was found for the BDI somatic symptoms index and BDI global score. Further analysis by U Mann Whitney showed statistically significant differences between the <30 group and 51–60 (U=309.5; P=0.027) and >60 (U=671; P=0.015) in BDI somatic symptoms index. The difference in the BDI somatic symptoms index were also statistically significant between the 31-40 and 41-50 age groups (U=357.5; P=0.025), 51-60 (U=303; P=0.000), >60 (U=123.5; P=0.000). The age group 41-50 had statistically lower the BDI somatic symptoms index than the 51-60 group (U=565.5; P=0.003) and >60 (U=256; P=0,006). BDI global score differed between 31-40 and 51-60 (U=517,5; P=0,011) and >60 (U=245,5; P=0,028). Statistically significant differences were found also between 41-50 and 51-60 (U=627,5; P=0,014) and >60 (U=293,5; P=0,030).

The figure below presents the incidence of clinically significant depressive symptoms, including the division into age ranges (Figure 2).

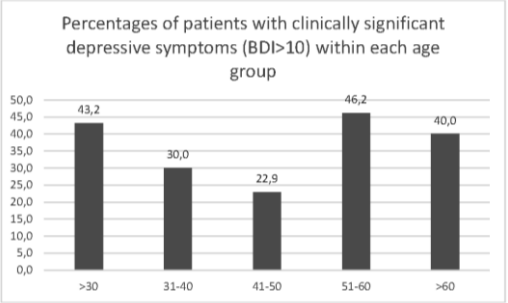

Fig. 2. The frequencies of the patients with the BDI scores indicative of clinically significant depressive symptoms (the mean BDI score≥10)

The differences between the groups were not statistically significant (chi^2=6.175; P=0.186).

Martial status and severity of Depressive Symptoms

No statistically significant differences were observed on the BDI scores between the patients with various marital status.

Level of Education and severity of Depressive Symptoms

In the further part of the analysis, the severity of depressive symptoms were analyzed in relation to the level of education (Table 3).

Table 3

Education level and the BDI scores

BDI scores	Elementary school education		Vocational school eductaion		High school education		University graduate education		Kruskal-Wallis ANOVA	
	M	SD	M	SD	M	SD	M	SD	*H*	*P*
BDI global score	12.09	9.13	10.48	6.32	8.62	5.70	7.02	6.05	8.84	0.031
BDI cognitive – affective index	5.64	5.43	5.33	4.03	4.84	3.93	4.25	4.20	2.43	0.488
BDI somatic symptoms index	6.45	3.93	5.14	2.90	3.78	2.70	2.77	2.42	19.06	0.000

BDI-Beck Depression Inventory

There were statistically significant differences between elementary school education and high school education subgroups in the BDI somatic symptoms index *(U* = 279,5 *P* = 0.024) and university graduate education in the BDI somatic symptoms index (*U* = 128, *P* = 0.000). There were also differences between vocational school eductaion and University graduate education in the BDI somatic symptoms index (*U* = 331, *P* = 0.000), BDI global score (*U* = 420, *P* = 0.023). The high school education subgroup also scored higher than the university graduate education BDI somatic symptoms index (*U* = 1994, *P* = 0.014) and BDI global score (*U* = 2089, *P* = 0.04).

The analyses of the frequencies of patients with significant depressive symptoms in subgroups with different educational level showed no statistically significant differences (chi^2=6.404; p=0.94).

Professional Activity Status and severity of Depressive Symptoms

Subsequently, the subgroups differing in their professional activity status were compared (Table 4).

Statistically significant differences were found on the BDI somatic symptoms index and the BDI global score. Further analysis by U Mann Whitney showed statistically significant differences between the "benefit" group and the employed on the BDI somatic symptoms index (*U* = 818.5, *P* =0.000) and the BDI global score (*U* = 969.5, *P* = 0.004), students in the field BDI somatic symptoms index (*U* = 133.5, *P* = 0.000). In addition, statistically significant differences were found between unemployed patients on the BDI global score (*U* = 492, *P* = 0.04).

Table 4

Work activity and the BDI scores

	Employed		Unemployed		Benefit		Pension		Student		Kruskal-Wallis ANOVA	
	M	SD	M	SD	M	SD	M	SD	M	SD	H	P
BDI global score	7.49	5.79	12.62	9.30	9.86	6.54	10.85	6.08	8.24	4.87	11.69	0.020
BDI cognitive–affective index	4.30	4.07	7.08	5.25	4.71	4.23	5.50	3.89	4.88	3.43	6.59	0.159
BDI somatic symptoms index	3.19	2.44	5.54	4.45	5.14	2.67	5.35	2.92	3.35	2.89	17.50	0.002

BDI-Beck Depression Inventory

No statistically significant differences (chi^2=5,836; P=0,21) were observed between these subgroups with respect to the percentages of patients with clinically significant depressive symptoms

Discussion

Key results

The data obtained in this study clearly demonstrate that the severity of depressive symptoms is alarming in primary care patients group. Clinically relevant symptoms (with the BDI total score >10) were observed in 37% of participants. Previous analyses showed, that depressive symptoms may be associated with e. g. poorer health, functional status and quality of life and increased health care use (Herrman et al., 2002). It is also important that depressive symptoms and major depression may be associated with increased morbidity and mortality from such chronic illnesses as diabetes and heart disease (Carney et al., 2002). Clinicians and researchers also point to the adverse effects of depression on health – related behaviors, such as smoking (Mathew et al., 2017), diet, over-eating, and sedentary lifestyle (Katon, 2003), its maladaptive effect on adherence to medical regimens, as well as direct adverse physiologic effects (i.e., decreased heart rate variability, increased adhesiveness of platelets (e.g. do Carmo et al., 2015; Gorman, & Sloan, 2000). Biological, life-style and psychological correlates may explain the association with increased morbidity and mortality (Katon, 2003).

In our study, sociodemographic factors, such as gender and marital status were not associated with depressive symptoms, in contrast to the findings of other studies (Kessler et al., 1993). We also noticed that higher education, continuing education (student) and being employed were protective factors associated with lower severity of depressive symptoms. It may result from e. g. higher social skills, cognitive factors, ability for help seeking, better social functioning and bigger social groups, better coping with problems (Muris et al., 2001).

Further analysis showed that the prevalence of cognitive – affective symptoms is high in the adolescents group. It is hypothesized that young adults may relevant lifetime changes (wedding, pregnancy) and education/work stressors (finding job,

finishing university). Other studies showed association between stressful life events and depressive symptoms (**Assari, & Lankarani, 2015; Kessler, 1997)**. These results need further investigation in prospective survey.

The frequency of occurrence of clinically significant depressive symptoms was also analyzed. The analyzes showed no differences between the groups differeing in sociodemographic variables. Although the mean severity of symptoms varies significantly between the groups, the number of patients with clinically significant depressed mood is similar in all groups. This may be related to the fact that chronic somatic disease to a greater extent than sociodemographic factors is a risk factor for the development of depression, regardless of gender, age, education, occupational activity and relationship status.

Limitations

Our study has some limitations. These analyzes take into account only a small number of variables that may be relevant to the prevalence of depressive symptoms in primary care patients, and we did not cover other variables, such as diagnosis of the disease and its severity, years of illness, and the stressful events. Another limitation is the subjective character of the presented data, and this may be of importance particularly when reporting depressive symptoms. Specialists using a standardized interview could better recognize depressive symptoms and their severity.

Interpretation

The obtained data suggest that depression is a relevant problem in primary care units. Some sociodemographic variables such as gender and marital status do not play an important role in severity of symptoms. Higher educational level and employment could be protective factors in depression. Our data also showed, that cognitive – affective symptoms of depression are common in young adults.

Conclusions

Data collected in the above study clearly indicate that the frequency of depressive symptoms in primary care patients is

warning. For this reason, the need for greater primary care specialists education about this type mental impairment, the use of screening tests (CES-D; HADS; BDI) at every physician – patient contact.

In addition, it was noted that sociodemographic variables may play an important role in depressive symptoms epidemiology. Due to the aging of the society and many factors, both medical and social, as well as psychological ones, particular attention should be paid to the population of 50+ people. The possibility of depressive symptoms or other abnormalities of a neurobiological nature (eg deterioration of neurocognitive functioning) should be diagnosed at the early stage of patient's contact with the health service. Furthermore, data clearly show the high ratio of depressive symptoms in young adults group (>30 years old). It should be clearly indicated that disorders such as depression along with inadequate lifestyles can be risk factors for many serious diseases in later life

The study was not financed from external sources.

Summary

Depression is estimated to be among the most burdensome disorders. It is estimated that depression and depressive symptoms may be even more common in specific populations, for instance, in patients suffering from somatic diseases.

Aim

The aim of the study was to evaluate the severity of depressive symptoms and their relationships with sociodemographic variables in Primary Care Patients in Poland.

Material and methods

The study involved 179 primary care patients (130 women, 48 men) aged from 18 to 65 years old. All participants completed Beck Depression Inventory (BDI) and a questionnaire inquiring about sociodemographic and clinical variables.

Results

Clinically relevant symptoms (with the BDI total score >10) were observed in 37% of participants. Gender and marital status were not associated with depressive symptoms; higher education, continuing

education (student) and being employed were protective factors associated with lower severity of depressive symptoms. Further analysis showed that the prevalence of cognitive – affective symptoms is high in the adolescents group. The analyzes of occurrence of clinically significant depressive symptoms showed no differences between the groups differing in sociodemographic variables

Conclusions

Data collected in the above study clearly indicate that the frequency of depressive symptoms in primary care patients is warning. For this reason, the need for greater primary care specialists education about this type mental impairment, the use of screening tests at every physician – patient contact.

In addition, it was noted that some sociodemographic variables may play an important role in depressive symptoms epidemiology

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Can emotional abilities protect us from stress? The relationship between emotional abilities and stress as perceived by women and men

Introduction

Stress is the experience of every human being. In the life of every person there are difficult situations, which violate the internal balance and are perceived as stressful. In accordance with the transactional approach, stress is defined as the relationship between an individual and the environment, which is viewed as a threat to wellbeing, overloading and exceeding personal sources (Lazarus, Folkman, 1984). People differ both in the number of experienced stressful situations, the intensity of the stressors to which they are exposed, and their response to them. Individual differences in response to stressors and the assessment of them in term of threat, loss or challenge are associated with many factors including temperamental and personality characteristics, such as emotional reactivity and neuroticism.

Resilience belongs to those personal resources which play an important role in coping when in stressful situations (Ogińska-Bulik, Kobylarczyk, 2016), and it is understood as the process of adaptation to traumatic and stressful events, and faced adversities (American Psychological Association, no date).

According to the multi-system model of resilience, it can be described in three spherical levels that refer to different sources of resilience (Liu, Reed, Girard, 2017). The core resilience is the central layer and consists of intra-individual factors like physiology, health behaviors, and is the foundation of the overall human resilience in life. The next layer is the internal resilience, which is created by the factors acquired and developed in interpersonal relationships. They include, among others, . the impact of education, family or friends, as well as learning from one's own experiences. The internal resilience

consists also of abilities, competences and knowledge. The last layer is the external resilience, which refers to external sources – all socio-ecological factors, that facilitate adaptation and coping in difficult situations. For instance, socio-economic status or access to healthcare can be considered as belonging to external resilience. The resources in each layer determine the human resilience to stressful events. Referring to this conceptualization of resilience, emotional abilities can be considered to be crucial factors creating internal resilience. They develop in a social context,. by social training and as a result of one's own experience (Matczak, 2004) or parental attitudes and reactions (Piekarska, 2004; Marcysiak, Wasilewska, 2009; Martowska, 2009) and impact of the family system (Martowska, 2007).

Emotional abilities were proposed by Mayer and Salovey (1997) to be components of emotional intelligence. These authors enlist four main groups of emotional abilities: (1) the ability to recognize emotions, (2) the ability to use emotions to support thinking, (3) the ability to understand emotions and to possess emotional knowledge and (4) the ability to manage emotions reflectively.

A high level of emotional intelligence does not mean that an individual will not experience negative emotions. For example, that he or she will not experience sadness or regret when the close relationship will end or that he or she will not feel angry being deceived, or that he or she will not be terrified hearing a diagnosis of a life-threatening illness. Difficult, stressful situation and negative emotions arise in the life of every human being, regardless of his or her emotional intelligence level. However, the level of emotional intelligence can influence how an individual perceives difficult situations and how he or she copes with negative emotions occurring at that time. It can also determine, if a person feels overwhelmed by negative emotions and a difficult event, or if he or she views them as a challenge and will be able to take effective action leading to regain the balance. According to Salovey, Bedell, Detweiler and Mayer (1999) people with high levels of emotional intelligence cope better when they are faced with difficulties. This is possible because they „accurately perceive and appraise their emotional states, know how and when to express their feelings, and can effectively regulate their mood states" (Salovey et al., 1999 p. 160). Individuals with high

emotional intelligence more frequently perceive stressful situations as a challenge than a threat (Matthews, Zeidner, Roberts, 2002). They have a greater sense of self-efficacy (Salovey, Woolery, Mayer, 2001). They can also chose and change coping strategies more flexibly in accordance with the situational demands (Davis, Humphrey, 2012). Emotional intelligence can be viewed as a resource playing an important role in difficult, stressful situations. Its high level may have positive health implications (e.g. Schutte et al., 2007). It can also be helpful in reducing stress associated with coping with illness, especially chronic or life-threatening illness.

The study presented in this paper refers to two emotional abilities that are components of emotional intelligence according to Mayer and Salovey's theory (1997), i.e. the ability to recognize emotions from the facial expressions and the ability to understand emotions. It can be assumed that the level of these abilities can affect the stress intensity both directly and indirectly. Emotions are information source, an alarm system which is available to everyone from the birth (Salovey, Mayer, 1990). They provide important information on one's own and other people needs, and on significant changes in the environment. Emotions also help to identify priorities. The ability to recognize emotions in others allow us to obtain information about an emotional state of another person or the quality of the relationship with this person. This enables the evaluation, for example, if the relationship is satisfying for both, or if it requires a "repair". For instance, an individual perceives the content of the face of the interlocutor, so this is an information that the interaction is correct and there are no interfering factors. On the other hand, if he or she sees an annoyance or anger on the face of another person, this can be a signal that something bad happens in this relationship. For example, the important needs of the other person could be infringed, therefore the appropriate action should be taken to avoid conflict escalation. An individual with a low level of the ability to recognize emotions in other people may not notice the difficulties that arise in the interpersonal relationships, thus not responding in time and as a consequence, a serious interpersonal conflict may arise, what will cause the experience of high stress. The lack of the ability to identify emotional states can also lead to the perception of others' emotions that they do not experience. The mere misidentification of emotions

in others can be a source of numerous conflicts in interpersonal relationships (Fitness, 2001) and a cause of stress experienced for this reason. A high level of emotion recognizing ability can contribute to reducing stress also in such a way that it facilitates the choice of a person who can provide the social support, what is important and helpful in difficult and stressful situations (cf. Salovey et al., 1999).

An individual with a high level of emotion recognizing and emotion understanding can identify and understand the causes of the difficulties in his or her emotional life. He or she can also recognize and understand emotions experienced by others and is also able to predict the others' emotional reaction to his or her behavior. Thanks to the high level of emotion understanding ability and the knowledge of emotion, an individual has the opportunity to choose more effective coping strategies. Moreover, knowing the nature of emotion, he or she knows that difficult, stressful situations are a natural part of life and are temporary (Gohm, Corser, Dalsky, 2005). The abilities to recognize and understand emotions can lead to the perception of oneself as a person who is competent in shaping interpersonal relationships (op. cit.), which can translate into a sense of control over one's own life. Such a person will not feel helpless or overwhelmed with negative emotions and problems. This can also reduce the stress perceived in difficult situations.

The main aim of the current study was to check whether there is a relationship between emotional abilities (emotion recognizing and emotion understanding) and perceived stress. As gender differences in the association between ability emotional intelligence and various aspects of functioning were observed in the earlier studies, it can be expected that similar differences will occur in the relationship between emotional abilities and perceived stress. The results of the earlier studies indicated that only in men, the high level of ability emotional intelligence translates into better adaptation (e.g. Brackett, Mayer, Warner, 2004), including lower depression (Salguero, Extremera, Fernández-Berrocal, 2012) and stronger resistance to stressors (Schneider, Loyns, Khazon, 2013).

The following hypotheses have been formulated:

1. There is a relationship between emotional abilities (emotion recognizing and emotion understanding) and perceived stress. High

levels of emotional abilities are associated with lower perceived stress.

2. There are gender differences in the relationship between emotional abilities and perceived stress. The association is stronger in men than in women.

Method

Participants and procedure

The sample included 268 adults (128 women and 140 men) aged 20-58 years (M = 29,82, SD = 8,48). Women were 20-52 years old (M = 27,29, SD = 7,38), and men were 21-58 years old (M = 32,15, SD = 8,88). Both students and non-studying participants were recruited. The participants had a higher or secondary education. The study was conducted individually and anonymously. All of the participants were informed that the study was conducted for scientific purposes and the results obtained by them will not be available to third parties. They were also informed of their right to withdraw from the study at any time without any negative consequences. The verbal informed consent was obtained. The participants were asked to read the instructions in the test booklets and to provide honest answers to all questions.

Measure

Emotional abilities were measured by *The Emotional Intelligence Scale – Faces* (SIE-T; Matczak, Piekarska, Studniarek, 2005) and *The Emotion Understanding Test* (TRE; Matczak, Piekarska, 2011).

The SIE-T measures the ability to recognize emotions based on facial expressions. This ability is a component of emotional intelligence in Mayer and Salovey's (1997) model. The test consists of 18 photos of female an male faces. Six names of emotions are given to each photo. . The participant's task is to determine which of the given emotions is expressed on the face of the person in the photo. The participants respond by marking one of the following answers: *expressed – not expressed – difficult to say*. The possible scores in the SIE-T range from 0 to 108.

The TRE is used to assess the emotion understanding ability, which is component of emotional intelligence in concept of Mayer

and Salovey (1997). The TRE consists of 5 parts. In part 1, participants order the given emotions in terms of their intensity. In part 2, they indicate the opposite emotion to the given one. In part 3, they choose an emotion that is an element of the given emotion. In part 4, they determine the emotion, which will appear in the given situation. In part 5, they indicate what conditions must be fulfilled in order that a given emotion appears in the described situation. In parts 2-5, participants choose one correct answer from the four given. The maximum score in the TRE is 30 points, and the minimum is 0 points.

The perceived stress was measured by the PSS-10 Inventory developed by Cohen, Kamarck and Mermelstein in the Polish adaptation by Juczyński and Ogińska-Bulik (2009). The PSS-10 measures the stress perceived over the last month. The PSS-10 consists of 10 items. The participants determine on a 5-point scale (0 – *never;* 4 – *very often*) how often they thought and felt in a given way. The scores in the PSS-10 range from 0 to 40.

Results

The Preliminary Analyses

Student's *t* test was used to compare the scores of women and men (table 1). To assess the effect size, Cohen's *d* was calculated.

[Near here Table 1]

The results showed that women, as compared to men, had a significantly higher level of emotion recognition ($d = 0.31$) and emotion understanding ($d = 0.35$), and, at the level of the statistical tendency, higher perceived stress ($d = 0.23$). The size of all effects is small and indicates that gender explains 2% of variance in emotion recognizing ability, 3% of variance in emotion understanding and only 1% of variance in perceived stress.

As the preliminary analyses, we also examined an association between emotion recognizing and emotion understanding. The Spearman's *rho* correlation's coefficient was 0.22, $p < 0.05$ in women and 0.43 $p < 0.001$ in men. The relationship between emotional abilities was stronger in men than in women ($z = 1.89$, $p < 0.03$, one-sided test).

Emotional Abilities and Perceived Stress

To verify the hypothesis on the relationship between emotional abilities and perceived stress Spearman's *rho* correlation's coefficients and One-Way ANOVA were carried out. According to the hypothesis, gender differences in the association between perceived stress and emotional abilities were expected. Therefore, the correlation's coefficients were calculated separately in women and men (table 2).

[Near here table 2]

Only in men, a statistically significant correlation between emotion understanding and perceived stress was found. This indicates that in men a high level of emotion understanding is weakly related to lower perceived stress. The association between emotion recognizing ability and perceived stress did not reach the statistical significance. In women, there was only a weak, negative correlation at a level of a tendency. This suggests that on the tendency level, emotion recognizing is weakly linked to stress perceived by women.

The Fisher's test was used to test the differences in the correlation's coefficients obtained for men and women. On the tendency level, the correlation between emotion understanding and perceived stress was stronger in men than in women ($z = 1.37$, $p < 0.085$, one-tailed test).

In order to carry out the One-Way ANOVA, the sample was divided into three groups taking into account the level of perceived stress. The division criterion was 0.5 standard deviation from the mean across the sample. Participants reporting low perceived stress (< -0,5 *SD*) were included into Group 1, participants with moderate perceived stress were included into Group 2, and participants reporting high perceived stress (> 0,5 *SD*) – into Group 3. Then, it was tested whether these groups differed in the level of emotional abilities. As different correlations between emotional abilities and stress were obtained in women and men, the analyses were conducted separately for each gender. The obtained results are presented in table 3.

[Near hear table 3]

The results of the post hoc test indicated that women with low and high perceived stress differed in the level of emotion recognizing ability. Women reporting low perceived stress scored higher on

emotion recognizing than did women with high perceived stress (mean difference: 3,80; $p < 0,05$). The results of the One-Way ANOVA indicated that men with low, moderate and high perceived stress differed in emotion understanding ability. The post hoc test showed that men reporting low or moderate perceived stress scored higher on emotion understanding compared to men with high perceived stress (mean differences: 2,26; 2,39; $p < 0,01$, respectively). The observed differences are shown in figures 1 and 2. However, there were no significant differences in the level of emotion recognizing ability between men differing in perceived stress and in the level of emotion understanding ability between women differing in perceived stress.

[Near hear figure 1 and 2]

Discussion

The main aim of the present study was to examine whether the abilities to recognize and understand emotions are related to perceived stress. Besides the verification of the main hypothesis, preliminary analyses were also carried out. They indicated that women, as compared to men, have higher levels of emotional abilities (emotion recognizing and emotion understanding). These differences also frequently observed in previous studies (e.g., Day, Carroll, 2004; Knopp, 2012; Matczak, Piekarska, 2011; Matczak, Piekarska, Studniarek, 2005; Siegling, Saklofske, Vesely, Nordstokke, 2012).

There are numerous reports of studies showing that women experience more stress compared to men (e.g., Leventhal et al., 2017; Matud, 2004; Plopa, Makarowski, 2010). These differences are explained by multiple roles played by women (e.g., role of mother, wife, employee), higher exposure to violence and experience of discrimination, as compared to men. It is often pointed out that women, as compared to men, can perceive different life difficulties as more stressful, and also tend to have a stronger, emotional engagement in the affairs of their loved ones. However, in the sample from the current study, the gender differences in perceived stress were only observed at a tendency level – women revealed only slightly higher scores than men. The lack of the significant differences observed in this study may be caused by the specificity of

the sample. It is worth noticing that in comparison with the Polish standardization sample of PSS-10 (Juczyński, Ogińska-Bulik, 2009; the mean score in the normalization sample of healthy subjects: $M = 16{,}62$), men and women from the current study perceived higher stress.

The preliminary analyses also tested, if there is a link between emotional abilities: emotion recognizing and emotion understanding. The observed low or moderate correlations are in accordance with the results of earlier studies (Matczak, Piekarska, 2011; Matczak, Piekarska, Studniarek, 2005).

According to the main hypothesis, it was expected that a high level of emotional abilities is associated with lower perceived stress. The obtained results confirmed this hypothesis partly, and simultaneously suggest the existence of gender differences. In men, perceived stress was associated only with emotion understanding ability. Men reporting high perceived stress were lower in emotion understanding compared to men reporting low or moderate perceived stress. This finding suggests that a high level of emotion understanding ability can be one of the factors contributing to perceiving lower stress by men. Thanks to the ability to recognize and understand sources of emotion in oneself and in others, and thanks to their knowledge of emotions, the stressful situation and emotional states can be more understandable for men. Thus, the difficult, emotogenic situations may be perceived as less stressful and less overwhelming. High ability to understand emotions and emotogenic situations can also foster a sense of competence (Gohm et al., 2005) and the sense of control over one's own life. The knowledge of emotions can also be useful in attributing meaning to stressful situations. The perception of stressful life events as controllable, comprehensible and meaningful are parts of sense of coherence (Antonovsky, 2005; Plopa, Makarowski, 2010; Terelak, 2001, 2008). The strong sense of coherence has a mobilizing effect in a stressful situation and makes the situation a challenge rather than a stressor (op. cit.). Perhaps the high level of emotion understanding ability is associated with a strong sense of coherence and in this way translates into lower stress in men.

The resources in form of the emotion understanding ability can be associated with lower perceived stress also through using adaptive

coping strategies. It is believed that people with high emotion understanding ability prefer to choose task– and emotion-focused coping strategies that foster adaptation, e.g., planning, seeking for social support, and will avoid emotion-focused strategies that are not adaptive, e.g., rumination (Lyons, Schneider, 2005). Indeed, in men, emotion understanding ability is associated with using of the coping strategies that facilitate adjustment, i.e., active coping, planning, positive reinterpretation, while avoiding the use of strategies considered as less adaptive, i.e., denial, behavioral disengagement, alcohol use (Piekarska, 2015). Referring to the law of the situational significance of Frijda (1988), it can be assumed that cognitive reinterpretation of emotogenic situation is the most effective coping strategy (Maruszewski, 2008). The current literature draws attention to the important role of meaning-focused coping (Heszen, 2013; Ogińska-Bulik, 2013; Ogińska-Bulik, Juczyński, 2008). Its role is to attribute meaning to stressful events and to notice positive consequences of these situations, and thus, to arouse positive emotions (Folkman, Moskowitz, 2006). Positive reinterpretation undoubtedly belongs to such strategies (Ogińska-Bulik, 2013; Ogińska-Bulik, Juczyński, 2008), and it is related to high level of emotion understanding ability in men (Piekarska, 2015).

In women, only at a tendency level, the ability to recognize other people's emotion on the basis of facial expression is negatively and weakly related to perceived stress. A cross-group comparison indicated that women perceiving low stress have a significantly higher emotion recognizing ability compared to women perceiving high stress. The experience of low stress can be a consequence of an accurate recognition of other people's emotional states, which can contribute to fewer interpersonal conflicts. As Loyns and Schneider (2005) notice, emotion recognition plays an adaptive role in stressful situations. The accurate perception of emotions in others can lead to focusing one's attention on the problem source and a possible attempt to change it. A high level of emotion recognition can also lead to a sense of self-efficacy and control in a stressful situation, and thus reduces perceived stress. The ability to accurately perceive emotions in others can also facilitate the choice of a person who will be ready to listen with openness and empathy, and will be able to provide support in a difficult situation. Women are more likely than

men to seek social support (e.g., Rzeszutek, Oniszczenko, Firląg-Burkacka, 2017). In women, social support plays an important role in coping with difficult situations and is associated with fewer symptoms of trauma (Oniszczenko, Szulc, Bulsa, Żebiełowicz, 2016). The ability to recognize emotions in others is related in women to the use of strategies such as seeking for instrumental and emotional social support (Piekarska, 2015). In women, this ability is also associated with less frequent coping by denial (op. cit.). It can be supposed that the link between emotion recognition and perceived stress is not only direct but is also mediated through use of appropriate coping strategies.

It is worth considering, why the correlation in women was only observed at a tendency level. Many studies indicated that women recognize emotions in others better than men and perceive even very subtle signs of emotional expressions (e.g., Fitness, 2001). However, a very high level of emotion recognizing ability does not always have positive implications, contrary, in certain situations very accurate peception of others' emotions can even lead to high stress in interpersonal relationships. This can happen when a woman sees even the most subtle and hidden expression of negative emotions, such as anger, rejection or contempt. The more important and closer is the relation with a person showing a negative attitude, the higher is the experienced stress. It is assumed that women compared to men pay more attention to emotions expressed by others (e.g., Hall, Halberstadt, 1994; Mayer, Caruso, Salovey, 1999). This can explain why the relationship between emotion recognizing ability and perceived stress, although weak and only at a tendency level, was found only in women.

However, in men, perceived stress was associated only with emotion understanding ability. This result suggests that men can use the emotion understanding ability to reduce perceived stress. This may be due to the men's preferred rational thinking that requires engaging cognitive abilities (Sladek, Bond, Phillips, 2010). And, as the results of revious studies indicate, the emotion understanding ability compared to other emotional abilities is most closely related to general intelligence and reasoning (e.g., Mayer, Salovey, Caruso, Sitarenios, 2001).

The results of present study suggest that there are gender differences in the relationships between the level of emotional abilities (emotion recognizing and emotion understanding) and perceived stress. This may indicate that emotional abilities may play a different role in resolution of stressful situations in women and men. Similar gender differences may also occur in other aspects of functioning. Therefore, it is reasonable to include gender in future studies on emotional intelligence. This will make it possible to better understand the role of emotional abilities in human life.

The results of the current study indicated that emotional abilities are associated with lower perceived stress. A high levelsof emotional abilities may cause that difficult situations are perceived as less stressful. It can also reduce experienced stress indirectly, e.g. by the choice of appropriate coping strategies. Although the observed associations were weak, emotional abilities can be viewed as personal resources which are worth developing and which can have positive implication for health, health behavior and coping with severe illness.

Summary

Chronic stress may have negative health implications. On the other hand, coping with illness, especially chronic illness, often leads to experience of intense stress. Therefore, it seems important to identify the factors, which can contribute to better coping skills and experiencing less severe stress. Emotional abilities can be viewed as resources playing an important role in stressful situations. The present study examined the relationship between two emotional abilities (emotion recognizing and emotion understanding) and perceived stress. The analyses were conducted in the sample of 268 adults (128 women and 140 men). Stress perceived in the last month was assessed by PSS-10 inventory. The SIE-T and the TRE tests were used to measure the ability to recognize emotions and the ability to understand emotion. The results showed gender differences in the relationship between emotional abilities and perceived stress. This suggests that particular emotional abilities may play different roles for functioning in women and men. In order to better understand the significance of emotional abilities in human life, gender should be taken into account in future researches in this area.

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Table 1

Gender differences in studied variables

Variable	Women		Men		Student's *t*
	M	*SD*	*M*	*SD*	
Perceived stress	18.72	6.45	17.19	6.81	1.889^{t}
Emotion recognizing	75.77	8.61	72.61	11.53	2.514*
Emotion understanding	19.05	3.44	17.81	3.67	2.845**

M – mean; SD – standard deviation.
* *p < 0.05;* ** *p < 0.01;* ^{t} *p < 0.06 (tendency).*

Table 2

Spearman's rho correlation's coefficients between emotional abilities and perceived stress

	Emotion recognizing		Emotion understanding	
	Women	Men	Women	Men
Perceived stress	-0.17^{t}	-0.09	-0.01	-0.18*

* *p < 0.05;* ^{t} *p < 0.06 (tendency).*

Table 3

Emotional abilities in women and men differing in the level of perceived stress

	Level of perceived stress	Women				Men			
		M	*SD*	*F*	*p*	*M*	*SD*	*F*	*p*
Emotion recognizing	Low	77.84	7.54	2.041	0.134	73.08	9.44	1.006	0.347
	Medium	75.75	9.11			73.83	12.14		
	High	74.04	8.73			70.61	13.02		
Emotion understanding	Low	19.39	3.12	0.354	0.702	18.39	3.09	6.083	0.003
	Medium	18.75	3.16			18.52	3.61		
	High	19.04	3.97			16.13	3.97		

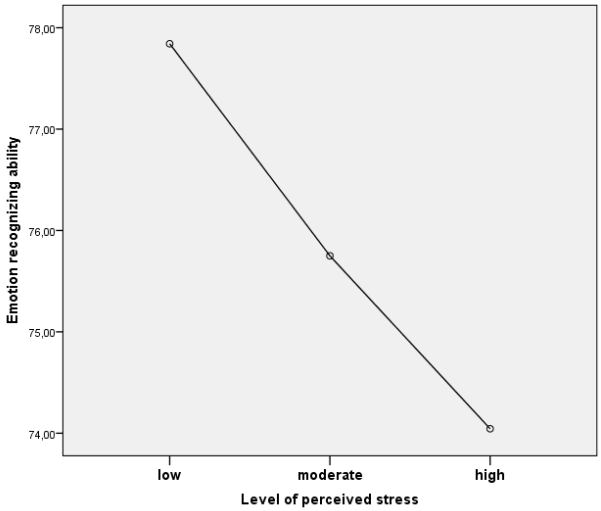

Fig. 1. Emotion recognizing and perceived stress in women

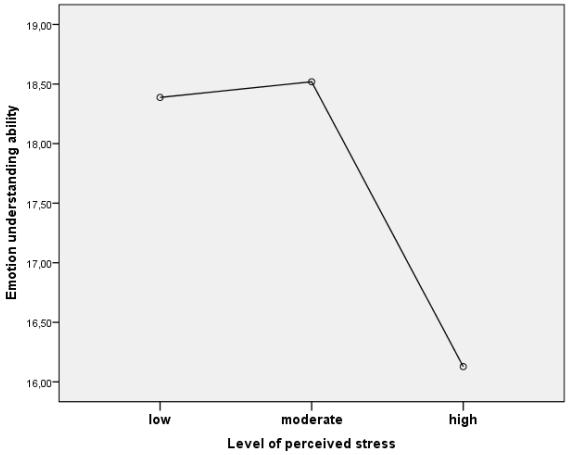

Fig. 2. Emotion understanding and perceived stress in men

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Workplace sexual harassment and its influence on employees' psychological outcomes – a social perception perspective

Introduction

What is sexual harassment?

The study presented in this paper deals with the issues of social perception of people who experienced sexual harassment (SH), or – rather – who experienced unwanted sexual attention and sexual coercion. While there exists a multitude of definitions of sexual harassment, the one I chose to use is my work is based on empirical research on people who experienced SH. Research shows (Fitzgerald, Gelfand, & Drasgow, 1995; Waldo, Berdahl, & Fitzgerald, 1998) that the general concept of sexual harassment can be divided into a few other categories, namely – sexual coercion, unwanted sexual attention and gender harassment. Sexual coercion occurs when a person is being blackmailed into having sexual relationship with someone in order to gain something (like a promotion, or a raise) or so as not to lose something (like a job). Unwanted sexual attention happens when a person is a focus of behaviors of a sexual nature that they do not want, do not expect and do not appreciate. Finally, gender harassment refers to situations when someone is being treated in a negative way because of their gender (like a woman being told to act more feminine and put on make up, or a man told to „man up" and to be less emotional). Research on men who experienced SH (Waldo, Berdahl, & Fitzgerald, 1998) showed that gender harassment can be further split into three more categories – lewd comments, negative remarks about gender and enforcement of the gender role. The first two types of sexual harassment are the ones which people usually think of when asked about sexual harassment. On the other hand, gender harassment – while much more prevalent and (when frequent) causing similar levels of negative outcomes (such as anxiety, depression, or somatic symptoms) is oftentimes omitted when sexual harassment is discussed, especially by lay people (Studzinska, Bialobrzeska, & Hilton, 2019).

Consequences and perceptions of sexual harassment

As it turns out, sexual harassment – even in its mildest forms – can cause a plethora of negative effects to people who experience it. A model presented by Fitzgerald et al. (1997) and Fitzgerald, Gelfand and Drasgow (1995), shows a number of factors which influence the occurrence of SH in the workplace, and a number of consequences of SH. According to their model, what precedes SH experiences is the organizational climate and job-gender context (i.e. the proportion of men and women in the organization). The consequences include both job related outcomes, such as job satisfaction, organizational withdrawal, organizational commitment and workgroup productivity, as well as consequences related to health and well-being, such as mental health, physical health, PTSD and life satisfaction. In this work I only concentrate on the health and well-being related outcomes and their perception. Willness, Steel and Lee (2007) in their metaanalysis, showed that SH experiences were in fact linked to psychological and physical health related variables. The experience of SH influenced people's mental health (their levels of anxiety, depression, sadness and negative mood), life satisfaction (subjective well-being) or PTSD levels; but also how often they experienced nausea, headaches, shortness of breath or exhaustion. Other research (Fitzgerald et al., 1997) also shows similar patterns of results – SH was linked to distress (anxiety, depression) and PTSD; SH was linked to well-being which in turn influenced the state of one's health (Langhout et al, 2005); SH was linked to psychological distress when perceived as frightening, and when perceived as bothersome (just for the men). In the case of military personel, experience of Military Sexual Trauma (which includes sexual harassment) was associated with two to three times greater odds of receiving mental health diagnosis, PTSD, adjustment disorders, alcohol abuse, anxiety, bipolar disorder, schizophrenia, psychosis, dissociative disorder, eating disorder and depression (Kimerling et al., 2007).

Thus, SH constitutes a serious issue which leads to grave consequences both in terms of mental, as well as physical health. What is more, SH happens to both men and women. While most studies show that women experience SH more often than men, depending on the studied samples and types of SH, in some instances men declare even more cases of SH than women (eg., Studzinska & Wojciszke, 2019). In this paper, I deal with the issue of social

perception of such experiences – depending on the gender of the person who experiences it and the person who commits it.

What is of interest here, is how the act of sexual harassment is perceived depending on who commits it and on whom. The classic study by Konrad and Gutek (1986) showed that men claimed they would feel flattered (67%) when asked how they would feel after experiencing different behaviors which constituted SH, compared to the majority of women (63%) who would feel insulted. Other studies dealt with the question of whether certain behaviors are examples of SH depending on who committed them (Frazier, Cochran, & Olson, 1995; Katz, Hannan & Whitten, 1996; LaRocca & Kromrey, 1999; Oshe & Stockdale, 2008; Osman, 2004; Runtz % O'Donnell, 2003; Stockdale, Gandolfo Berry, Schneider & Cao, 2004) and the results usually show that unwanted sexual attention and sexual coercion are considered to be sexual harassment, and that SH acts of men are considered to be sexual harassment to a larger extent than the SH acts of women.

What I wanted to learn from the present study, was how people perceive consequences of SH depending on the gender of the person who experienced it and the gender of the perpetrator.

Study

Method

Participants and Procedure

Participants included 211 civil engineering students – 83 men and 128 women; their mean age was 20.64 (SD = 2.35). They were asked to remain in class after lectures and participate in a paper-and-pencil study on people perception. They were all volunteers and were in no way remunerated. The study was accepted by a relevant ethics committee.

They were first asked to give their demographic information and fill out a short version of the Attitudes Toward Lesbian and Gay Men Scale (Herek & Capitanio, 1995), to control for attitudes towards homosexual men and women – as in two study conditions, the participants were reading a same-sex SH scenario. This scale consists of six items and three scores can be calculated – attitudes towards homosexual men, attitudes towards homosexual women and attitudes towards homosexual men and women. Due to the nature of the conducted study, I have decided to calculate the latter score, meaning to calculate the mean answer for all of the scale's items. High score on the scale indicates a rather negative attitude towards homosexual

men and women. Cronbach's alpha for the scale in this study was 0.851.

Next, they were asked to read an excerpt from an article (Szternel, 2010) which described a real-life case of sexual harassment. The SH in question involved both unwanted sexual attention and sexual coercion – the employer was not threatening, but rather promising more money and a better position in the company for sexual favors. The original article presented a case of a male employer harassing a male employee. I created additional three versions of the article, by changing the gender of the actors and introducing minor changes to the narrative, so that it could also fit a male on female, female on male and female on female SH scenarios. The participants were randomly assigned one version of the article.

To measure perceived depression of the SH victim, I used five items from Beck Depression Inventory in a modified form; that is – participants were not referring to themselves, but rather had to answer how they think the victim felt. The used items were (end of scale): *s/he is so sad and unhappy that s/he can't stand it*, *s/he feels irritated all the time*, *s/he lost all interest in other people*, *s/he believes that s/he looks ugly*, *s/he has lost interest in sex completely*. The choice of those five items was dictated by previous research (Studzinska, 2015; Study 1). The items are scored on a scale from 0 to 3, and the mean is then calculated to create the score of *perceived depression*; the higher the score, the higher the perceived depression. Cronbach's alpha = 0.761.

To measure perceived somatic symptoms of the SH victim, I used four items from the Hopkins Symptom Checklist (HCSL): *s/he has headaches*; *s/he has difficulty falling asleep or staying asleep*; *s/he has poor appetite*; *s/he feels tense or keyed up*. The items are scored on a scale from 1 (not at all) to 5 (extremely) and the answers are averaged to obtain a *perceived somatic symptoms* score. Cronbach's alpha = 0.825.

To measure the perceptions of the situation by the SH victim, I asked the participants to evaluate how the victim could have perceived the situation. I presented them with a list of 12 adjectives and their oppositions, for example: scary – not scary, not irritating – irritating and they were evaluating them on a 7-point scale. The overall score of *perceived negative appraisal of the situation* was calculated by averaging the answers on this scale. Cronbach's alpha = 0.875.

Finally, to measure the perceived emotional state of the victim, I asked the participants to evaluate on a 7-point scale to what degree

the victim could have experienced various emotions (eg., disgust, anger, guilt, sadness). The overall score of *perceived negative emotions*, was calculated by averaging the answers on this cale. Cronbach's alpha = 0.856.

I also asked them to evaluate – on a 7-point scale, to what extent the described behavior constituted SH and how responsible was the victim.

Other measures, especially related to the perpetrator were also used, but are not discussed as this is not the subject of this particular paper.

Results

The means and standard deviations, as well as Person's r correlations between the scales are presented in Table 1.

Table 1

Descriptive statistics and correlations.

	Perceived depression	Perceived somatic symptoms	Perceived negative appraisal of the situation	Perceived negative emotions	Was this SH?	Mean (SD)
Perceived depression	-					2.45 (0.67)
Perceived somatic symptoms	**.603****	-				3.42 (0.90)
Perceived negative appraisal of the situation	**.316****	**.462****	-			5.61 (1.08)
Perceived negative emotions	**.269****	**.457****	**.465****	-		5.19 (1.02)
Was this SH?	.104	.299*	**.519****	**.327****	-	6.53 (1.01)
Responsibility	-.070	-.110	**-.213****	**-.143***	**-.215****	3.18 (1.76)

*Note. ** p < .001, * p < .005. Significant correlations in bold. Scale for perceived depression: 0 to 3; perceived somatic symptoms: 1 to 5; Perceived negative appraisal of the situation, Perceived negative emotions, Was this SH, Responsibility: 1 to 7.*

As can be noted, the people who experienced SH were perceived to experience a significant number of depressive symptoms (M = 2.45; on a scale where 3 was the maximum score). For the other

variables, the mean score was always above the scale's middle point, suggesting that a person who experienced SH was also perceived to experience somatic symptoms, and perceive the event in a negative way. The described situation was seen as SH by the participants (M = 6.53 on a 7-point scale) and the victim was not seen as responsible for this situation (M = 3.18; on a 7-point scale).

Moreover, perceived depression, somatic symptoms and both negative perception and negative emotions scores correlated significantly with each other. Perceived negative appraisal and negative emotions correlated positively with the degree to which the participants saw the situation as SH (i.e., the more the situation was perceived as SH, the more perceived negative emotions and the more the situation was perceived as negative). The degree of assumed responsibility of the victim correlated negatively with perceived negative appraisal of the situation, negative emotions of the victim and perception of the event as SH (i.e., the more the event was seen as SH, the less the victim was seen as responsible; the more the victim was seen to perceive the event as negative and the more negative emotions s/he experienced – the less s/he was seen as responsible).

In order to analyze the differences in evaluation of the outcome variables depending on the gender of the victim and the perpetrator, I conducted a 2x2 (victim's gender x perpetrator's gender) ANCOVA with participant's gender, and attitudes towards homosexual men and women as covariates. For perceived somatic symptoms and depression there were no significant differences (all ps > .05). For the Perceived negative appraisal of the situation there was a significant main effect of the perpetrator's gender $F(1, 201) = 14.05$, $p < .001$, $d = 0.56$ ($M_{male\_perpetrator} = 5.91$, $SD = 0.97$; $M_{female\_perpetrator} = 5.32$, $SD = 1.11$); for Perceived negative emotions $F(1, 202) = 8.37$, $p = .004$, $d = 0.43$ ($M_{male\_perpetrator} = 5.41$, $SD = 0.98$; $M_{female\_perpetrator} = 4.97$, $SD = 1.02$); for perception of behavior as SH $F(1, 203) = 8.73$, $p = .004$, $d = 0.45$ ($M_{male\_perpetrator} = 6.76$, $SD = 0.64$; $M_{female\_perpetrator} = 6.31$, $SD = 1.24$); and victim's responsibility $F(1, 203) = 4{,}75$, $p = .03$, $d = 0.26$ ($M_{male\_perpetrator} = 3.41$, $SD = 1.67$; $M_{female\_perpetrator} = 2.95$, $SD = 1.82$).

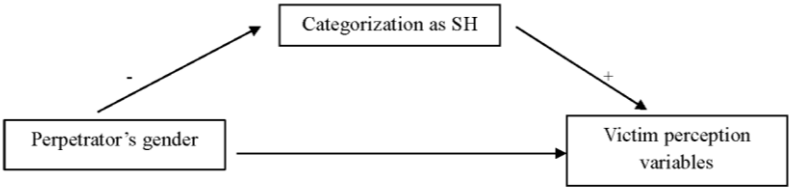
Most importantly, I was interested in finding out whether perpetrator's gender influences perception of the event as SH, and

thus – in turn – perception of the victim's states. As such, I conducted a series of regression analyses, using the bootstrapping macro (Hayes, 2013) testing Model number 4, with 20000 bootstrap samples.

The tested models included perpetrator's gender as the predictor (coded: men as 0, and women as 1) and the perception of the event as SH as the mediator, as well as the following covariates: participant's gender, victim's gender, attitudes towards homosexual men and women. The visualization of the tested mediation model is presented in Figure 1.

Indirect relationship was found between perpetrator's gender and perceived somatic symptoms B = – .08, SE = 0.04, 95% CI [-.1764, -.0208]; categorization as SH was predicted by perpetrator's gender, B = -.38, SE = .13, and in turn lead to perception of more somatic symptoms of the victim B = .23, SE = 0.05; perpetrator's gender and perceived negative appraisal of the situation B = -.18, SE = 0.06, 95% CI [-.3327, -.0617]; categorization as SH was predicted by perpetrator's gender B = -.38, SE = 0.13 and in turn lead to perception of the situation as more negative B = .49, SE = 0.06; perpetrator's gender and perceived negative emotions B = -.10, SE = 0.05, 95% CI [-.2276, -.0207], categorization as SH was predicted by perpetrator's gender B = -.38, SE = 0.13, and in turn lead to perception of more negative emotions experienced by the victim B = .27, SE = 0.06. There was no indirect relationship between perpetrator's gender and perceived depressive symptoms B = .00, SE = 0.01, 95% CI [-.0411, .0275].

Overall, those results suggest that when the perpetrator was male, the event was seen as SH to a larger extent and thus the victim was perceived to experience more somatic symptoms, have a more negative appraisal of the situation, and experience more negative emotions.



Covariates: participant's gender, victim's gender, attitudes towards homosexual men and women.
The mediation model is significant for the following outcome variables: perceived somatic symptoms, perceived negative appraisal of the situation and perceived negative emotions

Fig. 1. Tested mediation model

Results Summary and Discussion

The presented study provides new information regarding the process of evaluation of SH and victim's suffering. First of all, the participants recognized the described behaviors as sexual harassment. This is not surprising as sexual coercion is the stereotypical type of SH, while other types of SH (especially gender harassment) are less often recognized as SH (Studzinska, Bialobrzeska & Hilton, 2019). Secondly, the victims are perceived to suffer as a result of SH and to perceive the SH situation in a negative light – they are evaluated as experiencing depressive and somatic symptoms, going through negative emotions as well as perceiving the situation in a negative way.

Of note is also the difference in perception of the outcome variables depending on the gender of the perpetrator. The results showing the influence of gender of the perpetrator rather than the victim are interesting and contrary to the idea that the gender of the victim is of utmost importance. The results of this study indicate that when the perpetrator is a man perceived negative appraisal of the situation and perceived negative emotions of the victim's are higher than when the perpetrator is a woman. The behavior in question is also seen as constituting sexual harassment to a larger extent when the perpetrator is a man. Finally, the victim is seen as more responsible for being sexually harassed when the perpetrator is a man, compared to when the perpetrator is a woman. The question remains why there were no differences for the other two victim related variables – perceived depression and perceived somatic

symptoms. It is possible that the scales used – which were extracted from real-life diagnostic tools were too specific, and it was harder for the participants to answer them reliably.

As suggested previously (Studzinska, Bialobrzeska & Hilton, 2019), there seems to be an important relationship between the categorization of certain behaviors as sexual harassment and evaluation of sexual harassment related outcome variables, such as perceived victim's stress (Studzinska, Bialobrzeska & Hilton, 2019). As the authors note: „the underlying process seems to be that once they see a behaviour as harassing they see it as causing more stress to the victim" (p. 28). Similarly in this study, it seems that the sexually harassing actions in themselves were not as important as the perception of them as harassing (or not) and it was this perception that drove the evaluation. The model presented before (Studzinska, Bialobrzeska & Hilton, 2019) concentrated on the perception of the perpetrator rather than the victims themselves. It showed that categorization as SH positively influences the perceived stress of the victim, which in turn negatively influenced the perceived morality of the perpetrator. The actual SH evaluation process is probably even more complex and the results of the study presented here can be easily incorporated into the previous model. I would suggest that perpetrator's gender influences categorization as SH, which influences perceived victim's outcomes which then evaluates the perception of the perpetrator. Thus it might seem that the gender of the perpetrator influences how they are perceived but in fact the underlying mechanism shows that the evaluation depends on the categorization as SH and subsequently on the perception of victim's appraisal of the situation and victim's emotions. Seeing the importance of the categorization as SH variable, it is possible that teaching people about what constitutes sexual harassment would help them notice the suffering of SH victims regardless of their gender. This is especially important in the cases of the milder forms of SH (such as gender harassment), which people do not consider to be harmful, but and which are harmful to the actual victims. As can be noted from the presented results – this does not seem to be an issue for the case of sexual coercion.

In the post #metoo world, it is crucial to understand what drives the evaluation of those who commit sexual harassment and of those

who experience it, and the research presented in the paper tries to point out that direction. Certainly more work is needed to better understand the exact mechanism, but once it is uncovered it might serve to create interventions.

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Psychological and physiological predictors of affect in premenopausal and perimenopausal women

Introduction

Menopause is the last natural menstruation after which no bleeding occurs for 12 months. This period typically occurs in women aged between 44 and 55 (WHO, 1996; Utian, 1999). Research shows that the symptoms preceding the approaching menopause start at the age of 47 on average, lasting approximately 4 years. In Poland women experience menopause at the mean age of 51 (Kaczmarek, 2007; Skrzypulec, Naworska, Drosdzol, 2007).

The menopausal change occurs along with changes in hormonal secretion. The follicle-stimulating hormone (FSH) activates follicular growth and the production of oestrogens. The perimenopausal period is characterised by an elevated concentration of FSH in blood. FSH concentration increases throughout premenopause (it reaches levels exceeding 30 IU/l). The highest concentrations of FSH (10–20 times higher than normal) are found about 1–3 years following the menopause. The concentration of estradiol in the perimenopausal women remains constant but after menopause its level significantly decreases and falls below 20 pg/ml.

Menopause is a normative physiological process but in some women hormonal changes are accompanied by somatic and psychological symptoms at levels exceeding ordinary adaptation capabilities (Pinkerton, Zion, 2006). The symptoms may cause, exacerbate, or overlap with other disorders (Sprawka et al., 2008). An accurate diagnosis followed by early administration of hormonal therapy enable prophylaxis of circulatory diseases, osteoporosis,

urinary incontinence, as well as psychological disorders related to menopause.

Many studies indicate that women in the perimenopausal period of their lives are more depressed, anxious and irritable. Approximately 90% of women experience at least one of these states. Studies demonstrated that 40% of women reported mood problems of a depressive type related to menopause (Prairie et al., 2015), and 40% regarded this time as emotionally difficult and potentially bringing about many somatic diseases (Vesco, Haney, Humphrey, Fu, Nelson, 2007). Biochemical research indicates that a decreased concentration of oestrogens is directly related to biochemical processes in the brain which lead to depression. Mood disorders can be caused by a disturbed balance of neurotransmitters which regulate and mediate the function of neurons (Schmidt et al., 2015). Other studies suggest that an elevated risk of depression is associated not so much with a lower level of oestrogens as with its sudden decline (Dennerstein, 1996). The menopause-related decrease in oestrogen is thought to be a factor responsible for vasomotor symptoms (e.g. hot flushes, night sweats) in the course of menopause (Pinkerton, Zion, 2006). Other reports indicate that the frequency of vasomotor and somatic symptoms increases along with depressed affect (Prairie et al., 2015; Borkoles et al., 2015), although some studies fail to confirm a higher prevalence of depression during the perimenopausal period (Vesco, Haney, Humphrey, Fu, Nelson, 2007). Undesirable symptoms of menopause also include those associated with psychological functioning, e.g. confusion, worse memory, anxiety, etc. Lipińska-Szałek, Sobczuk and Pertyński (2003) point out a possible influence of oestrogen levels on cognitive function. Researchers emphasize the ambiguity of this correlation since some studies do confirm the influence of oestrogen on verbal memory but do not demonstrate its influence on concentration. Other studies failed to establish a link between cognitive function and hormones (Henderson, 1999).

Hormonal changes associated with menopause can exert influence on the emotional state but they are not the only predictors of a disturbed mood (Schmidt et al, 2015). During the perimenopausal period women experience many conflicts between their actual capabilities and their personal and social expectations. Some aspects

of their appearance deteriorate (e.g. teeth, voice, skin). Facial hair is likely to appear, while hair on the head is shed or/and becomes grey, and the body mass increases. Western culture promotes beauty, youthfulness, independence and self-actualisation. However, this approach may be a source of anxiety and may influence women's affect in the perimenopausal period (Stotland, 2002).

Affect is a totality of experienced feelings and emotions (Hogg, Abrams, Martin, 210). It demonstrates an individual's emotional disposition, a tendency to have particular feelings/emotions in particular circumstances. Historically, emotions were described using a set of basic labels: sadness, joy, happiness, and unhappiness. They were analysed using a bipolar mode whereby they were described using two opposing dimensions. An increasing level of positive emotions was tantamount with a decrease of negative emotions. Watson, Tellegen and Toward (1985) proposed an alternative approach to affect. Individual emotions can be grouped in two uncorrelated dimensions: positive affect and negative affect (Watson, Tellegen, Toward, 1985; Tellegen, Watson, Clark, 1999). Positive affect is associated with various states of pleasant mood (e.g. joy or enthusiasm), while negative affect is manifested in states of unpleasant mood (e.g. sadness, guilt). Their bipolar relation remains in place only for intense emotional experiences (Watson, Tellegen, Toward, 1985; Watson, Clark, 1992; Watson, Clark, 1994; Watson, 2000; Fajkowska, 2009). The independence of valence in the case of positive and negative affect can be seen in a situation in which mood is appraised as an affective trait which is characterized by relative stability in various circumstances. The stable nature of affect derives from personality or temperamental factors such as neuroticism or extraversion (Watson, 2000; Clark, Watson, Mineka, 1994). Watson (2000) claims that all people have a predominant affective state and a prevalent mood, in other words, a relatively constant emotional tendency. Negative Affect is a general dimension of subjective distress and dissatisfaction that involves a wide range of negative moods, including sadness, fear, anger or guilt. Its presence in structural analyses reflects the fact that these various negative emotions co-occur both within and among various individuals. Similarly, the general Positive Affect dimension reflects important co-occurrences among various positive mood states. For example,

someone who is happy will also report feeling energetic, confident and alert (Watson, O'Hara, Stuart, 2008). Positive Affect is associated with good health and a good psychological state (Watson, O'Hara, Stuart, 2008; Watson, Clark, Stasik, 2011). Positive and negative emotional responses have been linked to different personality dimensions and to different kinds of behavioral activation. Extreme levels of both Positive Affect and Negative Affect that are permanently present become maladaptive and indicate psychopathology (mania, depression, psychosis). Affects of low motivational intensity broaden the cognitive scope whereas affects of high motivational intensity narrow down the cognitive scope regardless of the positivity or negativity of the affective state. A negative emotional tendency modifies the cognitive state of a person. It has a bearing on attention, processing of information, thinking or decisions. A prolonged negative emotional state has a role in the emergence of mood disorders (Kaczmarek, 2007). The higher order Positive Affect factor has stronger (negative) associations with depression than with anxiety (Watson, Clark, Stasik, 2011). Negative Affect represents a specific dimension that is common to depression and anxiety, whereas low Positive Affect is a specific factor that is (negatively) related primarily to depression (Watson, Clark, Stasik, 2011), though sadness and guilt are more strongly correlated with depressive disorders (major depression) than with anxiety disorders.

Women in the perimenopausal period are particularly exposed to fluctuations in their emotional state and are subject to a higher risk of developing psychopathological symptoms. The aim of this study was to find predictors of positive and negative affect in women before the menopause and in women in the perimenopausal period.

Participants and Methods

Participants

The study involved 113 women, aged from 25 to 65, who were divided into two subgroups: 58 premenopausal women aged 25–40 and 55 perimenopausal women aged 45–60. The inclusion criteria for the perimenopausal group were: age and typical perimenopausal symptoms which are identified during a medical physical examination and an interview (dryness of the mucous membrane,

irregular menstruation, and changed intensity of bleeding). For diagnostic purposes concentrations of FSH and estradiol hormones were assessed. TSH (thyroid-stimulating hormone) in the blood serum was analyzed in order to distinguish menopausal symptoms from those caused by dysfunctions of the thyroid gland. As a result, the individuals whose TSH level was too low or too high were excluded.

Methods

1. Assessment of hormone levels in blood serum. The assessment of hormone level was part of the routine diagnostic-therapeutic procedure.

2. *Menopause Symptoms Scale* (Kraczkowski, Szymona-Pałkowska) features a list of 67 symptoms divided into 9 categories. The respondent assesses the severity of a given symptom on a scale ranging from 0 to 10. The instrument covers 9 categories of symptoms: Sexual Symptoms, Mass and Body Shape, Vasomotor Symptoms, Skin/Hair/Voice, Sleep and Fatigue, Affective Symptoms (depression-anxiety), Pain Symptoms, Cognitive Symptoms, and Urinary Incontinence. The method has good psychometric properties. Cronbach's alpha coefficients range from 0.716 for the Skin/Hair/Voice scale to 0.957 for the Affective Symptoms scale (Rykowska-Górnik, 2016).

3. *Appearance Self-Rating Sheet* (ASRS), developed by Janowski, Staniewski and Jedynak (2011). It features a schematic diagram of the human body (woman/man, depending on the gender of the respondent) with numbers 1–25 labeling specific body areas. The respondents are requested to assess their satisfaction with the appearance of these body areas and how important the appearance of these body areas is to them. Each body area is assessed on a scale ranging from 0 (entirely unsatisfied/unimportant) to 10 (totally satisfied/ important). Then, a mean satisfaction index of appearance satisfaction (ASRS-Satisfaction) is calculated as well as a mean index of appearance importance (ASRS-Importance).

4. *Body Dysmorphic Symptoms Questionnaire* (BDSQ) (Awruk, Janowski, Staniewski, 2011). This questionnaire measures the severity of symptoms pertaining to a body dysmorphic disorder. The items were formulated on the basis of diagnostic criteria for body

dysmorphic disorders in DSM-IV. The final version consists of 33 statements concerning thoughts, activities and fears associated with defects in the body. Subjects give their answers using a five-point scale, endorsing *always, often, sometimes, rarely, never.* The questionnaire consists of 4 subscales measuring: 1) a sense of a defect in one's appearance, 2) efforts to mask defects, 3) obsessive preoccupation with a defect, and 4) checking up/controlling a defect. Also, the total score is calculated, which is an overall measure of body dysmorphic concerns. BDSQ has satisfying Cronbach's alpha: 0.98 for the total score, and 0.97, 0.86, 0.77, 0.81 for the respective subscales.

5. *Positive and Negative Affect Schedule* (PANAS-X) by David Watson and Lee Ann Clark (Watson, Clark, Tellegen, 1988). The Polish version was developed by Fajkowska (2009). The tool features 60 adjectives describing various affective states (positive and negative). It is used to calculate General Positive Affect (PA) and General Negative Affect (NA). Also 11 additional scales were distinguished, which make up 3 general categories: General Negative Affect Scale, which consists of 4 dimensions: Fear, Sadness, Guilt, and Hostility; General Positive Affect Scale, which is composed of 3 dimensions: Joviality, Self-Assurance, Attentiveness; Other Affective States, which comprises 4 dimensions: Shyness, Fatigue, Serenity, and Surprise. Reliability of the scales (based on the coefficient of internal consistency) ranges from 0.83 to 0.90 for PA and NA, and equals 0.85 for Other Affective States.

6. *Generalized Self-Efficacy Scale* (GSES) draws on concepts of expectations and the notion of perceived self-efficacy developed by Bandura (1977, 1997). The Polish version of the scale was developed by Schwarzer, Jerusalem, and Juczyński. The scale consists of 10 statements. It measures the strength of a person's conviction about his/her efficacy in dealing with difficult situations and obstacles. The Polish version of the scale has good psychometric properties, with Cronbach's alpha = 0.85 (Juczyński, 2000).

Statistical Analyses

In order to extract statistically significant predictors of positive and negative affect, a series of stepwise regression analyses were conducted. Each analysis was carried out separately for the subgroup of premenopausal women (younger than 45 years of age) and the subgroup

of perimenopausal women (aged ≥ 45). Two global indexes of affect were introduced as dependent variables: Positive Affect and Negative Affect. Two following independent variables were introduced: 1) variables associated with body mass – BMI; 2) variables pertaining to body image: mean index of Appearance Satisfaction (ASRS-Satisfaction), mean index of Appearance Importance (ASRS-Importance), and Global Index of Dysmorphic Symptoms (BDSQ), 3) variables reflecting the severity of nine groups of perimenopausal symptoms, 4) Generalized Self-Efficacy Index (GSES); and 5) variables determining the levels of two hormones (FSH and estradiol).

Results

Levels of Negative and Positive Affect in Both Subgroups

The mean levels of Negative Affect were M=2.43 (SD=0.61) in the premenopausal women and M=2.33 (SD=0.54) in the perimenopausal women. The mean levels of Positive Affect were M=3.11 (SD=0.61) in the premenopausal women, and M=2.92 (SD=0.57) in the perimenopausal women.

Predictors of Negative Affect

In the premenopausal subgroup, one psychological variable, i.e. self-efficacy (GSES), proved a statistically significant predictor of Negative Affect. The resultant model was statistically significant (P=0.025) and it explained about 10% of variance in Negative Affect. The value of the beta coefficient was negative (β=–0.32), which means that higher Self-Efficacy was a predictor for lower Negative Affect (Table 1).

Table 1

The regression model explaining variance in Negative Affect in the subgroup of premenopausal women (aged <45)

Independent variables	*R*	R^2	adjusted R^2	R^2 change	*F* change	significance of F change
GSES	0.32	0.10	0.08	0.10	5.33	0.025

In the perimenopausal subgroup, also one psychological variable proved a statistically significant predictor of Negative Affect. The variable differed from the one in the premenopausal group, and this was Global Index of Dysmorphic Symptoms (total score on BDSQ).

The resultant model was of high statistical significance (p=0.002) and it explained about 19% of variance in Negative Affect. The value of the beta coefficient was positive (β=0.44), which means that the higher value of dysmorphic symptoms was a significant predictor for higher Negative Affect (Table 2).

Table 2

The regression model explaining variance in Negative Affect in the subgroup of perimenopausal women (aged ≥ 45)

Independent variables	*R*	R^2	adjusted R^2	R^2 change	*F* change	significance of F change
BDSQ	0.44	0.19	0.17	0.19	10.40	0.002

Predictors of Positive Affect

In the premenopausal group, the regression model yielded three variables which turned out to be statistically significant predictors of variance in Positive Affect. These variables were: Mean Index of Appearance Satisfaction (ASRS-Satisfaction), self-efficacy (GSES) and one category of symptoms, i.e. cognitive symptoms. The model encompassing these three predictors was statistically significant (P=0.046) and it explained about 54% of variance in Positive Affect.

Table 3

The regression model explaining variance in Positive Affect in the subgroup of premenopausal women (aged <45)

Independent variables	*R*	R^2	adjusted R^2	R^2 change	*F* change	significance of F change
ASRS-Satisfaction	0.61	0.37	0.35	0.37	27.86	0.000
GSES	0.70	0.49	0.47	0.13	11.65	0.001
Cognitive symptoms	0.73	0.54	0.51	0.04	4.21	0.046

Appearance Satisfaction and Self-efficacy turned out to be positive predictors of Positive Affect, which means that a higher level of these variables allows one to predict a higher level of Positive Affect. Cognitive symptoms were a negative predictor, Positive Affect (Tables 3 and 4).

Table 4

Significant predictors of Positive Affect in the premenopausal group

Predictors which were statistically significant in the model	*β*	*t*	*p*
ASRS-Satisfaction	0.44	4.09	0.000
GSES	0.36	3.36	0.002
Cognitive symptoms	–0.21	–2.05	0.046

In the perimenopausal group, the resultant regression model incorporates one statistically significant predictor of Positive Affect, i.e. Self-Efficacy (GSES). The model is highly statistically significant (P=0.006) and accounts for about 16% of variance in Positive Affect.

Table 5

The regression model explaining variance in Positive Affect in the subgroup of perimenopausal women (aged ≥ 45)

Independent variables	*R*	R^2	Adjusted R^2	R^2 change	*F* changes	significance of F change
GSES	0.40	0.16	0.14	0.16	8.52	0.006

Table 6

Significant predictors of Positive Affect in the perimenopausal group

Predictors which were statistically significant in the model	*β*	*t*	*p*
GSES	0.40	2.92	0.006

Self-efficacy turned out to be a positive predictor of Positive Affect (β=0.40), implying that a higher level of the former makes it possible to predict higher Positive Affect in this group of women (Tables 5 and 6).

Discussion

In order to identify predictors of Positive and Negative Affect in the premenopausal and perimenopausal women, a stepwise regression analysis was used. The premenopausal period is a relatively stable time in terms of hormonal activity, therefore

variability in affect is determined chiefly by personality and temperamental factors as well as life experiences (Dennerstein, 1996). Our findings showed that general Negative Affect in the group of premenopausal women is best explained only by one predictor, i.e. self-efficacy (GSES). Self-efficacy is a measure of ego-strength, and people who score highly on this trait tend to feel an internal drive pushing them to achieve their goals despite various adversities (Fajkowska, 2009). The level of self-efficacy also affects coping patterns and chances for effective problem solving. People with low self-efficacy tend to give up active coping more easily than those who are high on this trait (Watson, 2005). The results of the study indicate that *low* self-efficacy is a factor which best explains variance in negative feelings and a general tendency for Negative Affect in the premenopausal women. No variable related to body image was found to be a significant predictor of Negative Affect in this subgroup.

In the premenopausal period, body-image and concerns about flaws in one's appearance do not contribute to Negative Affect. However, a positive body image accounts for positive feelings. Our analyses demonstrated that general Positive Affect is explained by the mean appearance satisfaction index (ASRS-Satisfaction), a sense of self-efficacy (GSES), and (negatively) cognitive symptoms. Appearance satisfaction and self-efficacy turn out to be positive predictors of Positive Affect, and cognitive symptoms constituted a negative predictor, which suggests that stronger cognitive symptoms are linked with lower Positive Affect. It seems that the constellation of these predictors – positive body image, efficient cognitive processes and internal convictions about one's coping competences (efficacy) – imply a higher frequency of positive experiences, i.e. joy and pleasure.

It was interesting to verify whether changes in appearance occurring during the perimenopausal period, hormonal fluctuations as well as physiological and psychological changes are predictors of affect during this time. Apparently, menopausal symptoms and concentrations of sex hormones did not prove to be significant predictors of General Positive or Negative Affect.

Negative Affect in the perimenopausal women was best accounted for by the global index of dysmorphic symptoms (BDSQ).

Preoccupation with defects of physical appearance seems to constitute a predictor of negative emotions. Positive Affect in the group of premenopausal women is best explained by the sense of self-efficacy (GSES), which means that positive feelings experienced in this period correlate with a sense of empowerment.

Self-efficacy is the strongest predictor of Positive Affect regardless of the period in a woman's life. A positive body image contributes to satisfaction, especially in younger women, but in some perimenopausal women changes in their appearance bring about dysmorphic oversensitivity. This is a predictor of Negative Affect, causing fear, sadness, and dissatisfaction.

Conclusions

The sense of self-efficacy is the strongest predictor that explains both Positive and Negative Affect, and this is especially true of perimenopausal women.

Women's psychological well-being is also affected by their perception of their body. In younger women, however, satisfaction with their body is a predictor of Positive Affect while in older women, i.e. those in the perimenopausal period, dysmorphic symptoms (BDSQ) are predictors of Negative Affect.

These results indicate that the good emotional state of premenopausal women is not determined by hormonal changes taking place during this time. The intensity of Positive Affect, which is a risk factor in depressive disorders (Watson, O'Hara, Stuart, 2008; Watson, Clark, Stasik, 2011; Watson, 2005), is explained by the concept of self and the power of Ego. The sense of competence and efficacy generates activation and motivation, bringing internal peace. Prevention of mental health disturbances in women who are in their perimenopausal period should aim at enhancing sense of self-efficacy.

Summary

Introduction

During menopause, undesirable vasomotor symptoms, somatic symptoms, psychological symptoms can occur, which may be accompanied by increased negative affectivity. The current study

aimed to identify psychological and physiological factors that are related to affect in premenopausal and perimenopausal women.

Participants and methods

One-hundred thirteen women took part in the study, including 55 women aged 45 to 60 (the perimenopausal group) and 58 women aged 25 to 40 (the control group) was made up of. Blood serum hormone levels were assessed and questionnaires measuring body image, self-efficacy, menopausal symptoms and affect were used.

Results

In the premenopausal group, one psychological variable, i.e. self-efficacy was found to be a statistically significant predictor of Negative Affect. In the perimenopausal group, the Global Index of Dysmorphic Symptoms was a statistically significant predictor of Negative Affect. In the premenopausal group, three variables turned out to be statistically significant predictors of Positive Affect: satisfaction with one's own appearance, self-efficacy, and severity cognitive symptoms (a negative predictor). In the perimenopausal, Positive Affect was predicted by self-efficacy.

Conclusions

Factors which have an impact on positive affect and negative affect are different before and during the menopause period.

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