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Posttraumatic growth in detained patients with psychosis

Abstract: The study concerns the relationship of personality and situational factors with posttraumatic growth in people suffering from schizophrenia who have experienced various types of traumatic events. The study group included people who committed an offense and were detained (N = 30), and the control group – patients hospitalized in the Daily Ward of Psychiatric Rehabilitation (N = 30). The following tools were used to measure the examined variables: NEO Five-Factor Inventory, Posttraumatic Growth Inventory, sociodemographic variables questionnaire and Brief Psychiatric Rating Scale. The study group presented higher results in posttraumatic growth than the control group. Results indicated that patients from the control group attained higher results in Neuroticism, however patients from the study group – in Extraversion. In both groups the most frequently indicated traumatic event was chronic disease.
Key words: schizophrenia, detention, posttraumatic growth, psychosocial rehabilitation.

Introduction

The term *posttraumatic growth* refers to positive psychological changes resulting from an individual's struggle with traumatic events. According to Tedeschi and Calhoun, these changes include: changes in self-perception, in interpersonal relationships, spiritual changes and changes in the philosophy of life. These researchers also assume that the posttraumatic growth is not simply

the result of a traumatic experience, but the effect of the individual's remedial strategies. The mechanism of post-crisis change is related to the processes of cognitive reworking of the events experienced, the search for their meaning and role for the future functioning of the individual, and the rebuilding of cognitive patterns by the individual (Tedeschi and Calhoun 1996, pp. 455–470). As a result of the research carried out in recent years, a list of factors related to the activation of the process of posttraumatic growth can be created. These include: subjectively experienced despair and suffering (Dekel et al. 2012, pp. 94–101), personality features, remedial strategies, socio-demographic properties (Linley and Joseph 2004, pp. 11–21), emotional openness, reflectiveness in style of thinking (Taku et al. 2009, pp. 129–136), social support, spirituality and religiousness (Prati and Pietrantoni 2009, pp. 364–388), optimism (Bostock et al. 2009, pp. 281–296).

The posttraumatic growth describes the experience of an individual who has undergone various types of changes and reached a significant level of development, although in several areas, compared to functioning before the traumatic event. Development can manifest itself in a variety of ways, including increased appreciation of life, improvement of existing relationships with loved ones, creating new, more meaningful interpersonal relationships, a greater willingness to open up to people, increased self-esteem, a change of life's priorities, or development in the spiritual sphere. People who have experienced growth after a traumatic event, discover deeper levels of sensitivity and compassion for other people within themselves, and are able to look at their experiences and draw meaningful conclusions from them with greater distance. These people are beginning to attach greater importance to small, everyday matters that previously did not matter much to them, they have a greater appreciation of life, and their life philosophy is becoming more mature and rewarding. As a result of coping with the crisis, individuals notice an increase in their ability to cope with very difficult situations, show greater confidence, self-efficacy and personal strength (Ogińska-Bulik 2013).

Factors determining the posttraumatic growth

The current level of knowledge does not allow us to clearly define what determines growth as a result of trauma and why some people experience it and others do not. Posttraumatic growth is a very complex phenomenon, which is the result of the co-occurrence of a number of different factors, both external and internal.

According to Ogińska-Bulik, the external factors are: the type and intensity of the trauma experienced, the social support had and the social support received, and the passage of time since the traumatic event (Ogińska-Bulik 2013). In the case of trauma intensity, some researchers show in their research results a straightforward

relationship between the intensity of the trauma event and the posttraumatic growth, which would mean that the higher the intensity of the trauma, the higher the intensity of the growth resulting from it (Park et al. 1996, pp. 71–105). In turn, later studies indicate a curvilinear relationship – traumatic experience of low intensity results in lower level of growth, more intense traumatic experience provides for a higher level of growth, however, extremely traumatic events may be characterized by lack of growth or low growth (Calhoun and Tedeschi 1998, pp. 357–371). Of course, the assessment of this event is always subjective.

Sociodemographic variables, personality features and coping methods used by the individual are internal factors that influence the posttraumatic growth (Ogińska-Bulik 2013). With regard to gender, the research primarily showcases the role of the female gender. In light of these studies, women experience more positive changes and benefit more from the experience of traumatic events (Ogińska-Bulik 2013, pp. 51–66). As far as age is concerned, so far studies indicate that the incidence of posttraumatic growth is not age dependent and remains relatively constant throughout a person's life cycle. An individual's cognitive functioning is beneficial for the occurrence of development after a traumatic event if their patterns and beliefs include views that the world is understandable, orderly and just, and that other people are kind. An important element is also the personality of the person who experienced a traumatic event. When they are integrated, and features such as openness to experience, amicability, extraversion and conscientiousness are at a high level, this promotes posttraumatic growth (Ogińska-Bulik 2013).

Ogińska-Bulik also mentions the following as determinants of the posttraumatic growth: more frequent experiencing of positive emotions, ability to express emotions effectively, extended spiritual/religious life, hope, optimism, sense of coherence, adequate self-esteem, self-efficacy, resilience, hardness, inner sense of control and choosing the right way of dealing with the situation (Ogińska-Bulik 2013).

Chronic illness and committing an offense as a traumatic event

The experience of chronic mental illness can be seen by an individual as a traumatic event that changes their life. It seems that the situation is even more difficult in the case of ill people who, in a state of limited or total insanity, have committed aggressive actions qualified by law as offenses. In the case of the perpetrators of such offenses, when necessary and other measures are insufficient, the court shall order a restraining measure to prevent the person concerned from committing the offense again. The forms of such protective measures include: electronic surveillance, being admitted to a psychiatric institution, therapy – also in case of addiction (Markiewicz 2017).

In the case of a stay in a psychiatric institution, it is adjudicated by a court when there is a high probability of a repeat offense of considerable social harm, for example, in connection with a mental illness. Being admitted to a psychiatric hospital can also be sentenced to an offender of limited sanity who has been sentenced to imprisonment without parole, 25 years of prison or has been given a life sentence. Being admitted to a psychiatric hospital is also possible when there is a high probability of committing an offense of considerable social harm, for example in connection with a mental illness or in connection with committing individual paraphilia-related offenses (Hajdukiewicz 2016).

Difficult experiences such as mental illness, committing a criminal act and the protective measures taken against the person related to this act cannot be left without an impact on the further life of the individual and require them to face numerous consequences. After such experiences, most often negative changes are observed, both in real life changes and in the personal experience and negative self-image. But is it limited to that only? Since the dominant psychopathological image of people suffering from traumatic experiences also shows positive consequences of trauma, can this phenomenon also apply to people suffering from mental illness who have experienced various types of traumatic events?

In the light of the research, the process of posttraumatic growth is still an almost unnoticed issue in relation to people suffering from chronic mental illness (Mazor et al. 2016, p. 202). Taking into account the research conducted to date, concerning the factors related to the growth of the mentally healthy, it is worthwhile to deepen the knowledge of the growth determinants in people suffering from chronic mental illness, who have experienced various types of traumatic events – including those who have committed offenses and have been sent by the Court for mandatory treatment in isolation. For this reason, the aim of the study was to seek answers to the following research questions:

1. How important is the fact of suffering from a mental illness or committing a criminal offense for the possibilities of experiencing posttraumatic growth in people with schizophrenia?
2. What events do people suffering from schizophrenia, participating in rehabilitation or subject to detention, see as traumatic?
3. How important are personality components for the possibilities of experiencing posttraumatic growth in people with schizophrenia subject to rehabilitation or detention?

It was assumed that a mental illness and committing an offense by an ill person may be related to posttraumatic growth rather than just experiencing a chronic mental illness on its own. Therefore, a higher level of growth after trauma was expected to occur in the group of mentally ill people subject to detention (the study group). It was also predicted that in the study group, the most frequently indicated traumatic event would be crime, while in the control group – experiencing chronic mental illness. It was assumed that a higher level

of openness to experience, extraversion, amicability and conscientiousness would positively correlate with the level of posttraumatic growth. The high level of neuroticism, in turn, will be associated with a lower level of posttraumatic growth.

Research method and procedure employed

The following research tools were used in the study:

1. *Posttraumatic Growth Inventory (Adaptation: Ogińska-Bulik, N., Juczyński, Z.)* This inventory is a Polish adaptation of Richard Tedeschi's and Lawrence Calhoun's *Posttraumatic Growth Inventory* (PTGI). It consists of 21 statements formulated in a positive way, which describe the changes experienced as a result of a traumatic event and include: self-perception, relationships with other people and life philosophy. The first stage is to determine the event that changed the respondent's life. In the second step, the respondent reacts to each of the statements given, concerning positive changes. The higher the score, the more positive are the changes as a consequence of the trauma experienced (Ogińska-Bulik and Juczyński 2010, pp. 129–142).
2. *NEO-FFI – Five-Factor Personality Inventory (Adaptation: Zawadzki, B., Strelau, J., Szczepaniak, P., Śliwińska, M.)* The questionnaire is a Polish adaptation of the *NEO Five-Factor Inventory* created by Paul Costa and Robert McCrae. It consists of 60 items, which form 5 subscales corresponding to particular personality traits (conscientiousness, extraversion, neuroticism, openness to experience, amicability). The task of the responded is to react to each position on the sheet. The results are summed up for each of the five scales which feature 12 questionnaire items each. The higher the score on a given scale, the higher is the neuroticism, the value for experience, extraversion, conscientiousness or amicability of the given person (Zawadzki et al. 1998).
3. *Sociodemographic questionnaire* – a questionnaire created for the purpose of the study, allows to collect information about the respondents, such as age, gender or period of illness.
4. *Brief Psychiatric Rating Scale (BPRS)* – allows to assess the severity of psychotic symptoms according to the researcher, on a 7-level scale – 0–6. The assessment includes the current state of the patient (on the day of the study) (Overall I.E.1974).

Research sample characteristics

Two clinical groups were compared in the study. 60 people diagnosed with schizophrenia took part in it. The study group consisted of 30 persons detained in the Forensic Psychiatry Department at the Institute of Psychiatry and Neurology

in Warsaw. The control group consisted of 30 patients hospitalized in the Day Care Unit of the Psychiatric Rehabilitation Ward at the Institute of Psychiatry and Neurology in Warsaw.

A total of 19 women and 41 men (study group – 26 men and 4 women, control group – 15 men and 15 women) aged 21 to 65 (M = 42.5; SD = 11.83) participated in the study. The age of participants in the study group ranged from 21 to 63 (M = 41.7; SD = 11.08). In the control group the age of the subjects ranged from 25 to 65 (M = 43.3; SD = 12.67). The average age did not differentiate the studied groups at the level of statistical significance. With regards to the respondent's education, the study group included 15 persons with secondary education, 10 with primary education and 5 with higher education, and the control group – 15 persons with higher education, 13 with secondary education and 2 with primary education. With regards to the respondent's marital status, the study group included 21 unmarried persons, 3 married persons and 6 divorcees, and the control group – 23 unmarried persons, 3 married persons, 2 widowed persons, 2 divorcees. In the study group the average number of years of illness was 14.93 years (SD = 7.89). The average number of years of illness in the control group was 17.57 years (SD = 11.46). The difference in the average number of years of illness in the studied groups was not statistically significant.

Each of the examined groups participated in a rehabilitation program specific to their problems. Patients from the control group took part in therapy in the day-care psychiatric rehabilitation unit, where meetings and classes were held in the form of individual and group psychotherapy as well as trainings of various skills. The program included: training of self-reliance in personal hygiene, training of cognitive and social functions, training of social competence, psychoeducation, training of active participation in own pharmacological treatment, training of recognition of disease symptoms, choreotherapy, budget training, relaxation training, training of organizing leisure activities and training of conversation and problem-solving skills. Each patient had an individually developed therapeutic program, taking into account their deficits, resources and needs (Fijałkowska et al. 2012, pp. 49–53).

Patients from the examined group were detained in the Forensic Psychiatry Clinic at the Institute of Psychiatry and Neurology, which is a high security ward. The program of meetings and classes at the clinic included: individual and group psychotherapy, cognitive function training, social skills training, psychoeducation, emotional recognition training, addiction therapy, therapy for sexual offenders, film therapy, music therapy and psycho-drawing. The so-called "family meetings" were also organized once a month, where families could participate in individual consultations, psychoeducational workshops on the illness of a loved one or forms of psychological assistance after the detention and could obtain information on legal issues. Patients subject to detention usually spend several years in a psychiatric institution, which creates an opportunity for more effective treatment

and rehabilitation, including long-term psychotherapy and the establishment of a therapeutic relationship, systematic medication administration to the patient, improvement of mental and physical health, isolation from narcotics and the acquisition of skills necessary to live in the society (Markiewicz 2017).

An important issue is to develop an individual therapeutic plan tailored to the individual patient's needs. This requires taking into account numerous factors such as: the specificity of the patient's illness, the nature of the offense committed, personality traits, psychopathological symptoms, the issue of addiction, the level of motivation, social competence and cognitive capacity **(**Kalwa et al. 2017, p.38).

The main difference between the examined groups was the experience of various types of trauma. People from the study group were detained for committing an offense in a state of insanity. The nature of the offense committed by the respondents was: murder/attempted murder (13), criminal threats/violence (12), sexual violence (5). The importance the participants attributed to a given traumatic event and whether they perceived the act as a traumatic or life-changing event at all were crucial to the study.

It is also worth noting that both analyzed groups of patients actively participated in the therapeutic-rehabilitation program, based on training methods appropriate to the type of presented difficulties. At the time of the study, patients of both groups were at an equal level of severity of psychotic symptoms tested with the use of the BPRS, not differentiating the group at the level of statistical significance.

All persons participating in the study gave their informed consent.

Description and analysis of results

In order to verify the hypotheses, statistical analyses were conducted in IBM SPSS Statistics software, version 24. The analysis of the shape of the distribution of variables was carried out using the Shapiro-Wilk test. Detailed statistical analyses concerned comparisons between average results of individual variables in the examined groups and their significance was verified. The strength of the relationship was measured using Cohen's d. For the sake of the analysis of the results $p \leq 0.05$ was assumed.

Average results of personality traits in the research sample

In order to compare the average results of personality traits (neuroticism, openness to experience, extraversion, amicability and conscientiousness) in the examined groups, group averages and their standard deviation were calculated.

The statistical significance of the results was checked with the Student's t-test. The results obtained are presented in Table 1.

Table 1. Personality features – average values and differences between them. N = 60

Personality traits	*M* (study group; n = 28)	*SD*	*M* (control group; n = 30)	*SD*	*t-test*	*P*
Neuroticism	20.43	7.28	29.43	10.99	- 3.65	**0.001 (*d* = 0.965)**
Openness to experience	26.21	5.14	25.87	6.48	0.28	0.821
Extroversion	27.07	6.82	21.43	7.63	2.97	**0.004 (*d* = 0.779)**
Agreeableness	28.61	6.33	30.20	5.14	- 0.98	0.333
Conscientiousness	32.57	6.30	29.37	9.76	1.47	0.146

The analysis of the results did not show statistically significant differences between the average results in such personality traits as: openness to experience, amicability and conscientiousness. The differences between the intergroup averages for neuroticism (t (50.63) = -3.65; p = 0.001; d = 0.965) and extraversion (t (55.90) = 7.63; p < 0.01; d = 0.779) proved to be statistically significant. The analysis showed that the average value of neuroticism in the control group is significantly higher than in the study group. In the case of extraversion, on the other hand, the analysis showed that the average value of this trait has a higher statistical significance in the study group compared to the control group.

In order to compare the average results of the posttraumatic growth and its individual factors (changes in self-perception, changes in relations with others, greater appreciation of life and spiritual changes), group averages and their standard deviation were calculated in the examined groups. The results obtained are presented in Table 2.

Table 2. Posttraumatic growth and its factors. N = 60

Posttraumatic growth	*M* (study group; n = 30)	*SD*	*M* (control group; n = 30)	*SD*	*t-test*	*P*
Overall result – posttraumatic growth	64.83	19.03	51.97	24.61	2.27	**0.027 (*d* = 0.584)**
Factor 1 – Changes in self-perception	27.07	9.47	19.70	11.74	2.68	**0.010 (*d* = 0.691)**

Posttraumatic growth	*M* (study group; n = 30)	*SD*	*M* (control group; n = 30)	*SD*	*t-test*	*P*
Factor 2 – Changes in relationships with others	21.73	7.18	19.40	8.59	1.14	0.259
Factor 3 – Greater appreciation of life	10.03	2.95	8.03	3.63	2.34	**0.023 (d = 0.604)**
Factor 4 – Spiritual changes	6.00	2.98	4.83	3.42	1.41	0.165

The analysis of the results showed statistically significant differences between the averages in the overall result of the level of posttraumatic growth (t (54.55) = 2.27; $p < 0.05$; $d = 0.584$), in the case of the first factor – changes in self-perception (t (55.50) = 2.68; $p < 0.05$; $d = 0.691$) and the third factor – greater appreciation of life (t (55.67) = 234; $p < 005$; $d = 0.604$). The analysis with the Student's t-test showed that the average result of the level of the posttraumatic growth in the study group is statistically significantly higher than in the control group. In the case of the first and third factor, the analysis with the Student's t-test showed that the average result of these variables in the study group has a higher statistical significance than in the control group.

Traumatic events experienced by the respondents

It was expected that in the study group the most frequently chosen event would be committing a violent or abusive crime, and in the control group – a chronic or acute disease. In order to verify these assumptions, one of the measures of central tendency – the dominant – was used. In both groups the most frequently indicated answer was "Chronic or acute disease". Details are presented in Table 3.

Table 3. Traumatic events experienced by the respondents – frequency

Group	Type of traumatic event	Frequency of responses
Study group (N = 30)	Loss of a loved one	23.3%
	Chronic or acute illness	**30%**
	Violent or abusive crime	10%
	Loss of employment	10%
	Financial difficulties	16.7%
	Other	10%
	Total	100%

Group	Type of traumatic event	Frequency of responses
Control group (n = 30)	Loss of a loved one	13.3%
	Chronic or acute illness	**33.3%**
	Accident or injury	3.3%
	Disability	10%
	Loss of employment	10%
	Financial difficulties	10%
	Change in responsibility for the family	3.3%
	Other	16.7%
	Total	100%

Personality traits and posttraumatic growth

In order to verify the hypotheses concerning the relationship between the examined personality traits and posttraumatic growth in the examined groups, Pearson's r correlation coefficient analyses were performed. Correlations of personality traits with posttraumatic growth in the study group are presented in Table 4, while in the control group – in Table 5.

Table 4. Relationships between personality traits and posttraumatic growth in the study group. N = 30

Personality variables	Pearson's r correlation coefficient	*P*
Neuroticism	-0.132	0.503
Openness to experience	0.150	0.447
Extroversion	0.573	**0.001**
Conscientiousness	0.294	0.128
Agreeableness	0.083	0.675

In the study group, a statistically significant correlation was observed between the level of extraversion and posttraumatic growth ($r = 0.573$; $p = 0.001$).

Table 5. Relationships between personality traits and posttraumatic growth in the control group. N = 30

Personality variables	Pearson's r correlation coefficient	*P*
Neuroticism	0.066	0.731
Openness to experience	0.823	0.130

Personality variables	Pearson's r correlation coefficient	*P*
Extroversion	0.204	0.280
Conscientiousness	0.127	0.504
Agreeableness	0.042	0.828

In the control group, no statistically significant correlations between the examined variables and the posttraumatic growth were observed ($p > 0.05$).

Level of posttraumatic growth

Analyses of the average results of the level of posttraumatic growth between the studied groups are presented in Table 6.

Table 6. Posttraumatic growth – average values and differences between groups. N=60

	Group	*N*	*M*	*SD*	*t-test*	*P*
Posttraumatic growth	Research group	30	64.83	19.03	2.27	**0.027 (*d* = 0.584)**
	Control group	30	51.97	24.61		

The study group ($M = 64.83$; $SD = 19.03$) achieved, on average, higher results in the level of posttraumatic growth than the control group ($M = 51.97$; $SD = 24.61$). The differences proved to be statistically significant.

Statistical analyses also showed that the variables concerning the number of years of illness and the gender did not correlate with the posttraumatic growth at the level of statistical significance in any of the examined groups ($p > 0.05$).

Summary of the results and discussion

The aim of the study was to analyze the relationship that could exist between different traumatic events of a varying intensity and the posttraumatic growth and its different levels. The aim of the study was also to determine what personality traits are related to the posttraumatic growth of people suffering from schizophrenia who have experienced various types of traumatic events. The aim of the study was also to check what events from their lives they see as traumatic.

The comparison of the average results of individual personality variables between the examined groups showed several statistically significant differences between them. Members of the control group showcased higher level of

neuroticism than members of the study group, while members of the study group were on average more extrovert than the control group. The differences between the average results regarding openness to experience, conscientiousness and agreeableness were not statistically significant.

Particularly noteworthy is the fact that the test group achieved a lower score on the scale of neuroticism and an increased score on the scale of extraversion by people from the study group, taking into account its specificity, i.e. the number of traumatic events that they experienced, i.a., experiencing a mental illness, committing an offense and living isolated from society for a number of years. The high score on the scale of extraversion and the low score on the scale of neuroticism are conducive to more frequent experience of positive emotions, activity, emotional stability or the ability to cope with stress (Zawadzki et al. 1998). It is assumed that personality is a relatively permanent structure, difficult to modify. In this case, it seems that the personality structure of the patients in detention has a favorable configuration that can become the basis for therapeutic and social rehabilitation effects. The relationship between the personality traits of schizophrenic patients who have experienced various types of traumatic events is an issue worth exploring further.

Another assumption was that a chronic mental illness and the act of committing an offense by an ill person is more determinant of the posttraumatic growth than the experience of mental illness itself. The results obtained seem to confirm this hypothesis, because in the study group the level of posttraumatic growth has a higher statistical significance than that of the control group. In addition, in the study group, individuals experienced on average greater changes in two factors of posttraumatic growth: changes in self-perception and greater appreciation of life than those in the control group. The differences between the group averages for these two factors turned out to be statistically significant.

The above results could indicate that a higher intensity or a multitude of traumatic experiences (in this case, chronic illness and the act of committing an offense) is more related to the level of development than the experience of mental illness itself. In the studies cited earlier, the relationship between the type and severity of traumatic events was ambiguous. Some researchers tend to be inclined towards curvilinear dependence, which would mean that traumatic experiences of a low intensity result in lower growth levels, while more intense ones in higher levels, and extreme traumatic events may be characterized by lack or low growth levels. Other researchers point to the straightforward relationship between the intensity of traumatic experiences and posttraumatic growth (Ogińska-Bulik 2013). However, the research conducted does not fully answer the question how this relationship presents itself in the examined groups. The assumption was that people in the study group experienced more intense traumatic events than those in the control group, thus they would experience more positive changes. However, the subjectivity of the feelings about these events, whether they were considered to be extreme, moderate or not intense, was not examined.

What is interesting as well is the fact that in the study group, which achieved on average higher results of the posttraumatic growth, was dominated by men, and in the light of previous research on growth, the role of the female gender was emphasized (Ogińska-Bulik 2013, pp. 51–66). In the study, the analysis of the relationship between gender and posttraumatic growth in the examined groups showed no correlation at the level of statistical significance. It seems that the issue of gender relationship and development after a traumatic event could be worth attention in future studies on growth in schizophrenic patients.

It was assumed that in the study group, the most frequently indicated event would be a crime, and in the control group – experiencing a chronic disease such as schizophrenia. However, the hypothesis was only partially confirmed, since in both groups the most frequently indicated event was the experiencing an illness. The answer to this question was surprising in relation to the study group, where only four people considered committing a crime as a life changing event. It seems that committing an offense, the consequence of which is long-term detention, should be an event significantly affecting the lives of the respondents, which was not confirmed in this study. A possible reason why this event was not indicated could be the form in which it was presented in the questionnaire – "Violent or abusive crime". The statement is highly negative, however, the respondents had the opportunity to enter a different event than those listed, which they consider traumatic, but only one person decided to do so by entering what they did in the "Other" field. The second reason that may have affected the designation of a crime as a traumatic event is the fact that the respondents were the perpetrators rather than the victims, and this may have significantly affected their perception of the event.

An interesting observation is also the fact that the entire research sample of the subjects indicated various traumatic events, not only experiencing illness. This may mean that people who are ill do not always see their illness as a traumatic experience because they experience a whole spectrum of events that can potentially be traumatic, the same as healthy people.

To sum up, the research conducted may draw attention to the issue of posttraumatic growth in people with schizophrenia, because this is an area that has not been explored thus far. An issue that would be worth focusing on is the equal gender distribution, which in the conducted study was not preserved, mainly due to the specificity of the studied group. This could have a significant impact on the results, as most of the questionnaires used are gender-sensitive. Further search for growth determinants in patients could include other variables mentioned in studies on healthy people, such as hope, self-esteem, optimism or resilience. Another important issue is the size of the group, a larger and less specific group could help to set standards for the population of people suffering from schizophrenia. This would help in obtaining a broader picture of the positive changes resulting from traumatic events in the group of people with schizophrenia.

Conclusions

The following conclusions can be drawn from the presented results:

1. In the examined groups, significant differences can be observed in the general level of posttraumatic growth and in its first factor – changes in self-perception. In both cases in the study group the average results obtained were higher than in the control group.
2. In the entire research sample, the most frequently indicated traumatic event was experiencing a chronic or acute disease.
3. In the analyzed groups, significant differences can be observed in two personality traits: neuroticism and extraversion. Members of the study group achieved, on average, lower results in the neuroticism scale than in case of the control group. In turn, on the scale of extraversion, the average results obtained in the study group were higher than in the control group.

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