

The sense of coherence in patients of a psychiatric adolescent unit

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Summary

The study analysed the sense of coherence in three diagnostic subgroups (psychotic, eating disorder, and neurotic and personality disorders) of patients in a psychiatric adolescent unit and their families.

Key words: sense of coherence, adolescent patients

Introduction

The sense of coherence is a construct created by Antonovski [1, 2]. The construct is a global orientation, which involves seeing the world as more or less comprehensible, manageable, and meaningful. Antonovsky proposed the construct in order to explain why some people were able to deal with life's difficulties very well, and others were not. The concept has also been used to explain the maintenance of individual health in spite of heavy life burdens, i.e. a "salutogenic" approach toward health and illness issues.

The number of studies published in both worldwide and Polish literature is increasing. These publications include descriptions of the concept [3, 4], SOC 29 psychometric features [5] and reviews of different research perspectives applying the sense of coherence concept.

Some surveys analyse correlations between the sense of coherence construct and stress [6, 7, 8, 9], others compare abilities to cope with stress and health conditions involving intensity of symptoms. According to Bishop [6], the sense of coherence was an important factor determining the ability to cope with stress. His findings establish a high correlation with health conditions, but only among people with a low SOC level. A logical consequence of the concept is the presumption that SOC level will be significantly lower among people suffering from various types of mental disorders. The presence of chronic conditions such as HIV infection [10], alcoholism, or psychoac-

tive substance abuse [8, 11, 12] are additional factors that may be relevant variables in analysing the process of coping with illness.

The results of the Midanik [11] study of elderly people reveal that awareness of SOC level makes it possible to predict the extent to which the impact of alcohol abuse varies on an individual basis. For instance, in one comparison SOC level was higher among people drinking less as opposed to more alcohol.

Another study of depressed women conducted by Habrat [13] shows that their sense of coherence was significantly lower than among healthy controls of both sexes. In the men suffering from depression group, however, SOC level was significantly lower than in the healthy men control group.

Kosińska-Dec, Jelonkiewicz, and Muraszkiwicz [14] conducted a study of families with a healthy child and an adult schizophrenic child. The research findings identify that general sense of coherence and the sense of control were lower among schizophrenic children as compared to healthy children. There were no significant differences in the sense of coherence level between mothers in both groups. The results of the fathers' groups' comparison were slightly different. The fathers' sense of coherence tended to be lower in the group of fathers' of healthy children.

The Mroziak, Czabała and Wójtowicz [15] study results show that the sense of coherence was lower in both the clinical groups, one suffering from neurosis, another one from depression, than in a group of healthy individuals. It was also lower among women suffering from depression than from neurosis. The sense of coherence had significant negative correlation with the symptom fluctuation and general health assessment in the group suffering from neurosis. The authors acknowledged, that the SOC 29 scale is a tool used mostly for health measuring, but it is also a useful differentiating tool for psychopathologists.

An important issue to consider is the problem of the development of the sense of coherence [1, 2, 16, 17]. It is apparent that the family of origin establishes the first environment and the newborn's sense of coherence fully depends on living conditions. Antonowski called the individual characteristics acquired by means of socialization and genetics using the term "Generalized Resistance Resources" (GRR).

Another study conducted by Zwoliński [9] attempts to established a relationship between the parents' sense of coherence (also described as family resources), and their children's sense of coherence. He believed that the increases exhibited on the young adult sense of coherence scale were directly influenced by at least a few independent factors: family merits perception and the high sense of coherence level in the parental subsystem. Researchers mostly believed that the sense of coherence of parents is indirectly influenced by their education if it is higher than high school. Children's SOC level stabilisation is fully completed by the family around the age of 30 [3]. Although according to Mroziak [12] between the age of 18 and 20 development of the sense of coherence is already finished and there is strong enough evidence to merit further studies on it.

There is a lack of literature regarding the sense of coherence in the group of young adults hospitalised in psychiatric wards.

Purpose of the research

Authors suggest a hypothesis according to which the SOC level among patients of an adolescent unit was expected to be lower than in the comparison groups taken from other research programmes and it should be differentiated into various diagnostic subgroups. They also tried to evaluate which SOC level – mother's or father's – was closer to the SOC level of their child.

The third research problem and question was an issue of correlation between SOC level and the hospitalised patient's gender and number of hospitalisations. The subsequent hospitalisations are frequently the results of a breakdown of defense mechanisms when the family system is not able to cope with the disease. Presumably, lower SOC level among patients, especially their parents' SOC level, would highly correlate with the number of hospitalisations.

The study group will also be used as an entry group for a catamnestic study planned in the next 3 years to evaluate and answer the questions regarding the parent's and patient's sense of coherence changes according to their future life events.

Methods

72 patients hospitalised in Department of Child and Adolescent Psychiatry, Institute of Psychiatry and Neurology in Warsaw, their parents (57 mothers, 36 fathers) and siblings (20 people) were examined in 2000. All of them were evaluated with SOC 29 scale in the period following directly after their admission to the psychiatric ward.

Fairness of the SOC 29 scale was determined using the -0.91 Cronbach Alpha for the general scale, -0.83 for the comprehension subscale, -0.81 for the manageability subscale, and -0.80 for the meaningfulness subscale. The results were similar to findings of other studies evaluating fairness of the SOC scale [4, 15, 18, 19].

The average age of patients and level of parents' education are shown in tables 1 and 2. Any data regarding sibling's age or education are not included in the table because this information was not included in the case histories.

Diagnostic subgroups division is shown in Table 3.

Table 1

Average age

Research group	Average age (years)	Standard deviation
Patients N=72	10.8	2.00
Mothers N=57	45.7	0.40
Fathers N=30	47.0	0.03

Table 2

Parent's education

Research group	Primary school	High school	College, University
Mothers N=57	0.25%	54.17%	30.58%
Fathers N=30	12.5%	40.00%	40.00%

In diagnostic, neurotic, and personality disorder subgroups there were patients either diagnosed with neurotic disorders or dually diagnosed with neurotic and personality development disorders.

Table 3

Diagnostic subgroups division

Number of patients	Diagnostic criteria		
	Psychotic disorders	Borderline Disorders	Neurotic and Personality Disorders
N=72	N=20	N=20	N=20

Research results

The group of patients and their families SOC questionnaire output analysis.

Table 4

SOC results of patients, mothers, fathers and siblings

SOC 20	SOC results							
	Patients N=72		Mothers N=57		Fathers N=30		Siblings N=20	
	M	SD	M	SD	M	SD	M	SD
General Scale	118.07	32.71	138.50	24.74	148.75	21.50	136.05	23.03
Comprehension	41.01	10.58	40.07	11.00	52.33	8.00	47.30	0.53
Manageability	41.02	11.20	42.54	0.23	52.44	2.01	48.22	2.22
Meaningfulness	30.27	11.02	43.15	2.03	43.07	0.00	40.57	7.75

SOC results are presented in charts 3, 4, 5, 6 et the end of the article.

SOC GENERAL SCALE – PATIENT

Chart 3. Results distribution in the general subscale SOC in the patient group

COMPREHENSION – PATIENT

Chart 4. Results distribution in the comprehension subscale in the patient group

MANAGEABILITY – PATIENT

Chart 5. Results distribution in the manageability subscale in the patient group

MEANINGFULNESS – PATIENT

Chart 6. Results distribution in the meaningfulness subscale in the patient group

An Analysis of Variance and Post-Hoc LSD Test showed statistically significant

differences (with $p < 0.05$) between average results SOC variable for patients, mothers, fathers and siblings groups. It is shown in Table 5 and on the Chart 1.

The statistical analysis did not show any major differences in the sense of coher-

Table 5

Statistically significant differences between average results in the general scale SOC

Means		Patient	Siblings	Mother	Father
118.97	Patient		X	X	X
137.84	Siblings	X			
138.6	Mother	X			
148.75	Father	X			

X – statistically significant difference at $p < 0.05$

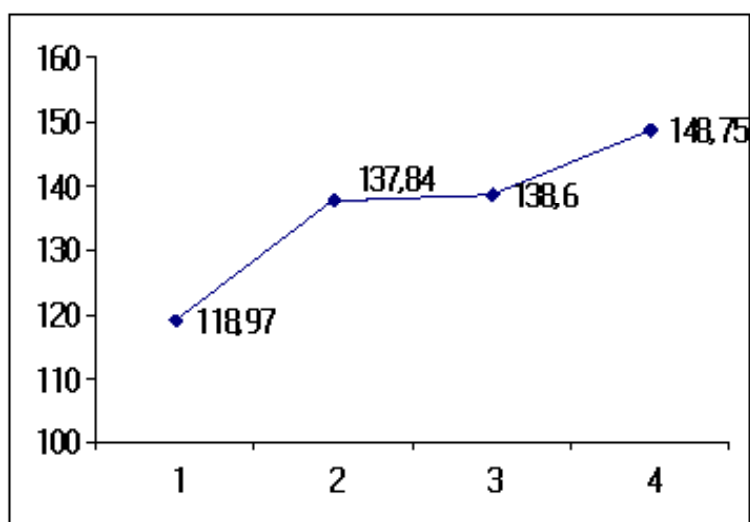


Chart 1

ence level in the three diagnostic groups, besides the meaningfulness in the SOC subscale. The subscale results were statistically significantly lower in the neurosis group (average 31.61) than in the group with psychotic disorders (average 38.15) and the eating disorders group (average 39.90). Mroziak's research [12] describes the output comparison in the SOC scale of the hospitalised patients in the adolescent unit and the healthy youth group in Chart 2 and Table 6. The SOC scale results reached by the adolescent patients group were statistically lower than the other one, with exception for the comprehensive subscale, in both the boys and the girls groups.

According to Kosińska-Dec, Jelonkiewicz, and Muraszkiwicz [14] the hospitalised

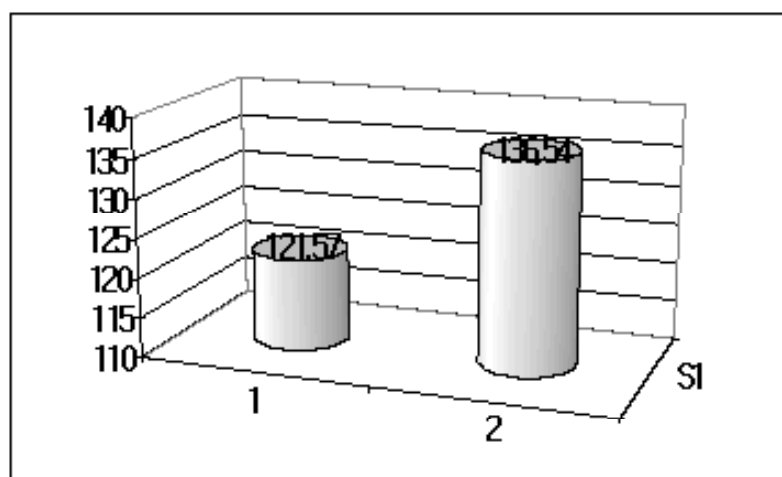


Chart 2. Comparison between the average SOC variable results: the hospitalised boys group, the healthy boys group
1 – patients group; 2 – healthy persons group

Table 6

T Student Test for the patient group and control population with gender consideration

SOC		M1	SD1	N1	M2	SD2	N2	T	P
SOC – general scale	Boys	121.57	32.02	20	138.54	21.43	375	-3.30	p=0,01
	Girls	117.5	33.34	40	120.2	20.71	375	-2.04	p=0,01
Comprehension	Boys	37.73	11.00	20	40.02	7.00	375	-1.77	p<0,1
	Girls	37.34	12.52	40	39.05	7.32	375	-1.05	p<0,1
Manageability	Boys	44.32	0.75	20	40.22	2.52	375	-3.10	p=0,01
	Girls	40.15	12.74	40	40.21	2.04	375	-4.21	p=0,01
Meaningfulness	Boys	30.07	11.22	20	40.11	2.72	375	-5.47	p=0,01
	Girls	30.30	11.7	40	41.20	2.43	375	-3.04	p=0,01

M – average in patients group, SD – standard deviation, N – number of people,
1 – patients, 2 – the group of healthy persons

adolescent's parents' results in SOC 29 scale were not statistically significantly different from results of the parents of healthy children. Results comparison was justified because of the similarities in age and education level of both groups of parents. The general sense of coherence of the hospitalised patients' mothers (average - 138.59) was almost identical with the general sense of coherence of the mothers of healthy adult children (average - 138.76). The fathers' sense of coherence was higher (on the verge of statistical significance) than in the ill children fathers' group (average - 148.75). It was also higher than in the healthy children fathers' group (average-140.48), especially

in the manageability scale.

Study results did not show any correlation between patients' SOC value and number of hospitalisations. Mostly the patients' and their parents' SOC levels did not exhibit any correlation. Nevertheless, a statistically important correlation ($p < 0.05$) was found between: 1) general SOC scale, patients' manageability subscale and fathers manageability subscale results, 2) comprehension scale of hospitalised boys and general scale, comprehension and manageability subscale of their fathers, 3) comprehension subscale of hospitalised boys and comprehension subscale of their mothers.

Discussion

It was anticipated that the sense of coherence among the hospitalised adolescents was statistically significantly lower than among their mothers, fathers and siblings, and also among other healthy adolescents [12]. The fact that patients' SOC level was significantly lower than SOC of their siblings, showed that the presence of disease had a strong impact on both the SOC level and "Generalized Resistance Resources" (GRR) level decrease [1, 2]. Children were brought up in the same family environment wherein their different SOC levels were formed.

The sense of coherence of the hospitalised adolescent patients (average in general scale SOC – 118.97) was lower than the sense of coherence in most of the clinical trials. For example, lower than in a group of slightly older patients with schizophrenia (average – 123.87) from the study conducted by Kosińska-Dec, Jelonkiewicz, Muraszkiwicz [14]. It also approached the correlation with the sense of coherence level among men after a clinical depression (average in the general scale SOC – 116.35) in Habrat's study [13] and results of patients with neurosis. [15] This low SOC level may be caused by their young age. The average patients' age was about 16.8 years, so one can presume that the period of the sense of coherence formation had not been finished yet. The patients were under the age of 20, indicating according to Mroziak [12] that their fully balanced sense of coherence was not fully developed.

It is worth considering why there were no significant differences in the sense of coherence in three diagnostic subgroups of the hospitalised patients, with the exception of the meaningfulness subscale, in which the results of patients with neurotic and personality disorders were statistically lower. The results from the neurosis subgroup of young adolescents are similar to the output of patients with neurosis from the Mroziak, Czabała and Wójtowicz study. [15]

We also wondered why our findings did not show any correlation between the patients and parents' sense of coherence level and the number of hospitalisations. We anticipated a decrease with subsequent hospitalisations. Our assumption was based on the notion that in spite of other influencing variables, each consecutive hospitalisation was a symptom of the family defense system breakdown. Repeated hospitalisations indicate the family defense system is unable to cope with the long-term stress caused by the disease independently.

The last study findings showed convergence with Kosińska-Dec, Jelonkiewicz, and Muraszkiwicz [14] study results. In both studies the parents' sense of coherence levels

were similar, especially in the case of mothers of healthy and ill children. Fathers of hospitalised children also had higher (though not statistically significant) SOC levels than fathers of healthy children, especially on the manageability scale. The authors could not find any other explanation than Kosińska-Dec's; "the child's illness and the hardship gives fathers wings of courage and strength". Fathers of ill children, however, had a higher sense of meaningfulness subscale scores in the Kosińska-Dec study, and not, as it is shown in our research, on the sense of manageability subscale.

Conclusions

1. The sense of coherence of hospitalised adolescents assessed by SOC 29 was significantly lower than the SOC level of their siblings, mothers and fathers.
2. The sense of coherence did not differentiate the three diagnostic subgroups – psychotic disorders, eating disorders, neurotic and personality disorders. Only the results from the meaningfulness subscale were statistically lower in the group of patients suffering from neurotic and personality disorders than in all the other diagnostic groups.
3. The sense of coherence did not correlate with the number of hospitalisations.
4. The hospitalised adolescent patients' parents' sense of coherence did not differ from the sense of coherence of parents of healthy children, especially regarding mothers. The sense of coherence of patients' fathers was higher (approaching statistical significance), especially in the manageability scale - than among parents of healthy children.
5. The study is the first research analysing the sense of coherence of adolescents hospitalised in psychiatric wards in Poland. The group of adolescents, their siblings and parents will establish the entry group for catamnestic studies.
6. Because of a very limited amount of patients and their parents participating in research, our results should be estimated very carefully. It would be appropriate to conduct another study on a larger number of patients.

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CHARTS 3 – 6

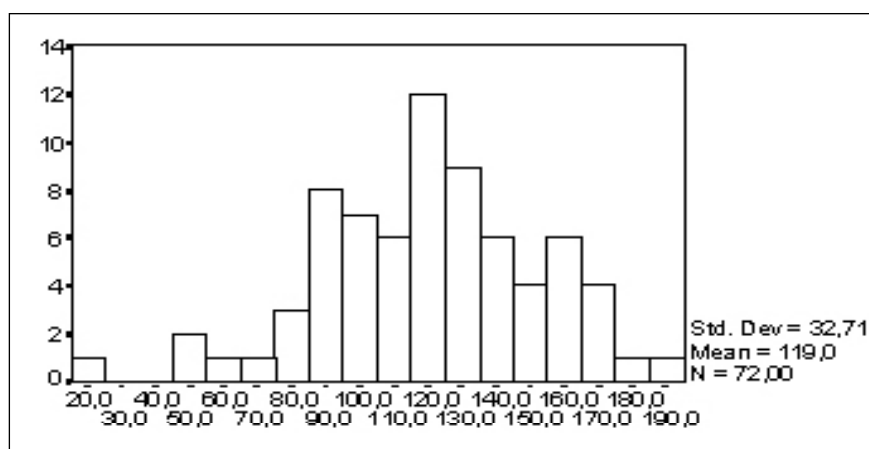


Chart 3. Results distribution in the general subscale SOC in the patient group

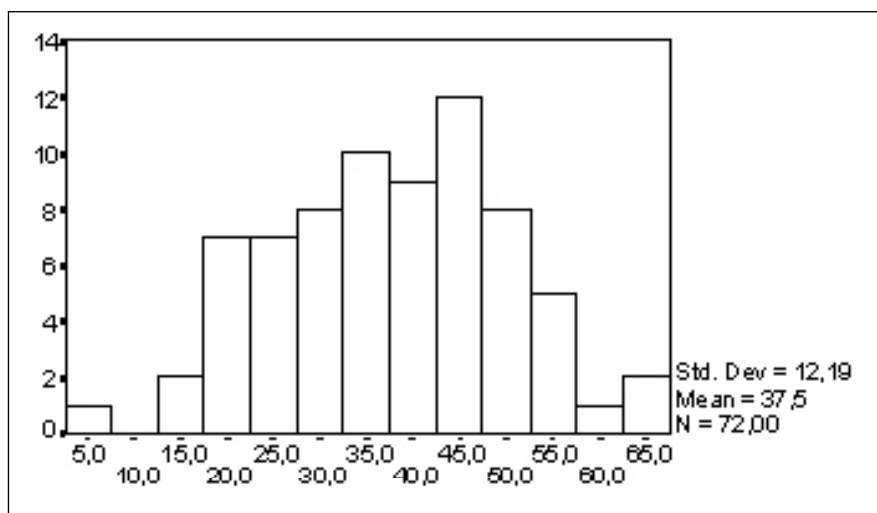


Chart 4. Results distribution in the comprehension subscale in the patient group

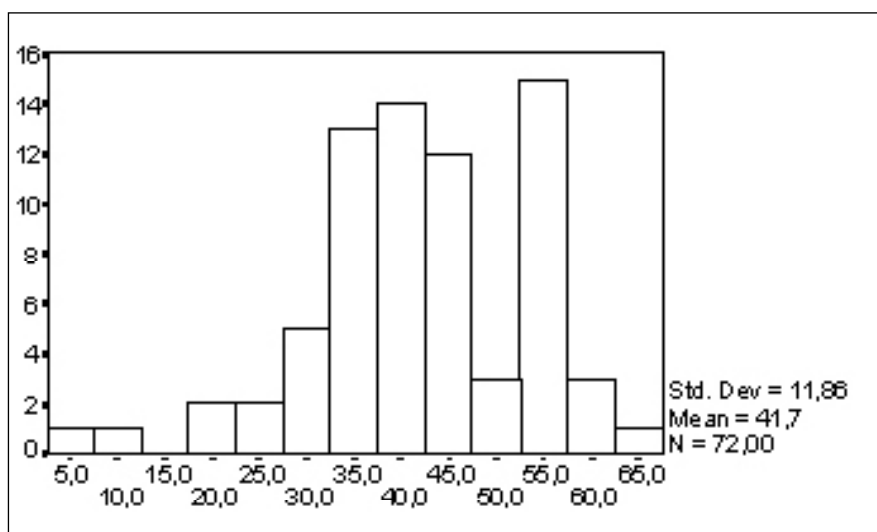


Chart 5. Results distribution in the manageability subscale in the patient group

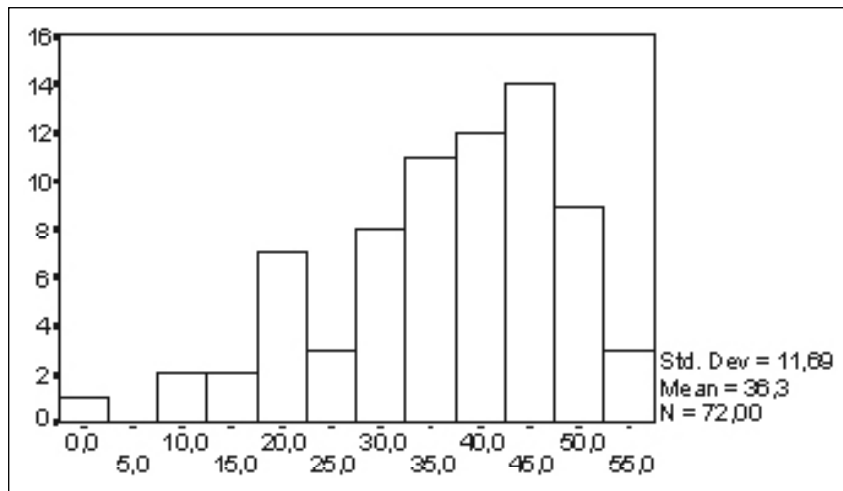


Chart 6. Results distribution in the meaningfulness subscale in the patient group

