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*The effect of personality on a sense of coherence (SOC)  
in neurotic patients*

Long-standing studies by sociologist of medicine A. Antonovsky concentrated around significant questions about factors due to which man retains health in spite of many strains and gets better quicker in the situation of illness. These questions inspired him to undertake research on a sense of coherence (SOC). A sense of coherence according to Antonovsky is "a global, complex orientation of man which makes him feel that outer and inner worlds are foreseeable and it is probable that events and processes will run according to his own expectations". SOC is generalized and relatively stable attitude which decides a basic way of perceiving, feeling and understanding the world.

Antonovsky (2) stressed that a SOC is a kind of "orientation at disposal" and it cannot be identified with the idea of resistance resources nor with personal qualities. However, he considered essential the relationship between the sense of coherence and social and cultural background and personal qualities affecting the development of SOC. The relationship between the sense of coherence and various aspects of personality was also analyzed by Rimm (9).

The aim of the study was to determine the relationship between a sense of coherence and particular characteristics of self-concept.

#### METHODS

In this study were included 101 patients (32 males and 69 females) treated in the Department of Neurosis Therapy at the Medical University of Lublin. The average age of the males was 32 years, and of the females – 31 years. Their level of education was as follows: 80% of patients ranged between primary school and college, 13% had college education, 7% had only primary school. The criteria for selection of patients for this study was the diagnosis of neurotic disorders made according to ICD-10.

The above group was studied using the following methods: 1. The Orientation to Life Questionnaire SOC-29 by Antonovsky (1). 2. An Adjective Test List ACL by Gough and Heilbrun (5). All data collected using the above mentioned methods were analyzed statistically and the results are presented in the next part of the paper.

#### RESULTS

In the first stage of the study the r-Pearson's correlation coefficient was used to calculate the correlation between the scales of the Adjective Test List ACL and a sense of coherence calculated from the results of Questionnaire SOC-29.

In the statistical analysis of the results the division of the scales of ACL Test into the following scales: *modus operandi*; needs; subject; transaction analysis; originality and intelligence were taken into consideration.

Table 1 presents correlation coefficients between the scales *modus operandi* and the sense of coherence. There is a highly statistically significant positive correlation between the sense of coherence and the scales: number of positive adjectives and scale of typicality and a negative correlation between the sense of coherence and the number of negative adjectives. Self-rejection, self-hostility, dejection, anxiety are connected with the low SOC.

Table 1. Correlation coefficients between the scales *modus operandi* in ACL Test and the sense of coherence (Questionnaire SOC-29)

<i>Modus operandi</i> scales in ACL	r	p
Nck	0.16	0.136
Fav	0.52	0.000
Ufv	-0.48	0.000
Com	0.41	0.000

Table 2 presents the correlations between the sense of coherence and scales of needs in ACL Test. Highly statistically significant positive correlations are found between the sense of coherence and a complex of needs conditioning task performance and achieving a success (End+, Dom+, Ord+, Ach+) and needs conditioning the formation and support of emotional relations with other people and willingness to co-operate (Int+, Nur+, Aff+, Het+). The sense of coherence correlates negatively with the need for support from the others (Suc-) and the need for self-humiliation (Aba-). These correlations are statistically very significant ( $p < 0.000$ ).

Table 2. Correlation coefficients between scales of needs in ACL Test and the sense of coherence (Questionnaire SOC-29)

Scales of needs in ACL	r	p
Ach	0.49	0.000
Dom	0.54	0.000
End	0.57	0.000
Ord	0.52	0.000
Int	0.46	0.000
Nur	0.35	0.001
Aff	0.52	0.000
Het	0.53	0.000
Exh	0.17	0.107
Aut	-0.17	0.096
Agg	-0.09	0.380
Cha	-0.02	0.845
Suc	-0.46	0.000
Aba	-0.45	0.000
Def	0.04	0.679

The obtained correlation coefficients reveal the interdependence between the sense of coherence and such personal qualities as: strong will, industriousness, ambition, persistence and the ability to plan the actions properly. The sense of coherence increases when an individual is engaged in the attempt to understand his own and other people's behavior, co-operates with others, is sympathetic and supportive. The low sense of coherence co-exists with such personal qualities as: avoiding confrontation with crisis and stress, tendency to escape the problems in dreams and the sense of inferiority, feeling guilty, anxiety and a sense of danger in relations with the

surroundings. Individuals with the low sense of coherence tend to subordinate to wishes and requirements of others, who are perceived as stronger, more effective and deserving approval.

Table 3 presents correlations between the sense of coherence and subject scales in ACL Test. As it may be seen from the above table the sense of coherence correlates highly statistically significantly with qualities that guarantee a suitable level of adaptation and effective functioning of personality. The individuals with a high sense of coherence trust their abilities (S-Cfd+) and are able to use their resources in a creative way (Cps+). These individuals reveal a positive attitude to life and good personal adjustment (Iss+), sensitivity (Fem+), and also ambition, persistence and self-discipline (Mas+, MIs+).

Table 3. r-Pearson correlations between results in subject scales in ACL Test and the sense of coherence (Questionnaire SOC-29)

Subject scales in ACL	r	p
Crs	-0.09	0.366
Scn	0.16	0.133
Scf	0.48	0.000
Pad	0.60	0.000
Iss	0.55	0.000
Cps	0.36	0.000
MIs	0.49	0.000
Mas	0.36	0.000
Fem	0.26	0.011

Table 4 presents correlations between the sense of coherence and scales of transaction analysis in ACL Test. The results collected in the above table reveal the occurrence of highly statistically significant positive correlations between the sense of coherence and scales: Nursing Parent (Np+) and Adult (A+) and negative correlation with the scale Adapted Child (Ac-). The high level of the sense of coherence is connected with the sense of responsibility, autonomy, ability to solve problems effectively, and respect for standards and social values. At the same time the high level of the sense of coherence supports spontaneity and ability to enjoy life (Fc+).

Table 4. r-Pearson correlations between results in the scales of transaction analysis in ACL Test and the sense of coherence (Questionnaire SOC-29)

Transaction analysis scales in ACL	r	p
Cp	-0.08	0.421
Np	0.54	0.000
A	0.52	0.000
Fc	0.25	0.000
Ac	-0.58	0.000

Table 5 presents correlations between the sense of coherence and scales of originality-intelligence in ACL Test. The high sense of coherence co-exists with such qualities as intelligence, and ability to think logically (A4+).

Table 5. r-Pearson correlations between results from scales of originality-intelligence in ACL Test and the sense of coherence (Questionnaire SOC-29)

Originality-intelligence scales in ACL	r	p
A1	-0.26	0.010
A2	-0.36	0.000
A3	0.55	0.000
A4	0.36	0.000

Regression equations were used for the sense of coherence (dependent variable) with the most strongly correlated results in scales in Adjective Test ACL (independent variables). For calculations a step procedure MCR from statistical package SPSS was used. In statistical analyses the study group was divided according to sex. The authors tried to find conditions for the sense of coherence among psychical needs included in Adjective Test ACL in the group of females, and then in the group of males. The results of regression are presented in Table 6. The above results reveal that the increase in the sense of coherence, both in females and in males, may be explained by such personal qualities as persistence, conscientiousness (End+) and ability to establish friendly interpersonal relations (Het+).

Table 6. Results of multiple regression for the sense of coherence (dependent variable) and scales of needs in ACL Test (independent variables)

Females						
Independent variables	R	R sq.	sq. err.	Beta	t	p
End	0.72	0.52	0.31	0.59	4.66	0.000
Het	0.77	0.59	0.36	0.30	2.38	0.024
Males						
Independent variable	R	R sq.	sq. err.	Beta	t	p
End	0.78	0.61	0.37	0.53	3.54	0.002
Het	0.84	0.71	0.40	0.41	2.69	0.014

Table 7 presents the conditions accompanying the sense of coherence in females and males depending on the results in thematic scales in ACL Test. The high sense of coherence in females is the result of good personal adjustment, the ability to achieve goals (Iss+) and having such qualities as: ambition, determination, the ability to take the initiative when facing tasks and the persistence in performing them (Mas+). In the group of males the high sense of coherence is conditioned by the positive attitude to life, ability to cope with stress and good personal adjustment (Pad+).

Table 7. Results of multiple regression for the sense of coherence (dependent variable) and thematic scales in ACL Test (independent variables)

Females						
Independent variables	R	R sq.	sq. err.	Beta	t	p
Iss	0.68	0.47	0.41	0.59	4.49	0.000
Mas	0.74	0.54	0.57	0.29	2.20	0.036
Males						
Independent variables	R	R sq.	sq. err.	Beta	t	p
Pad	0.72	0.52	0.36	0.72	4.75	0.000

Table 8 presents the conditions in the sense of coherence among the scales of transaction analysis. In females the sense of coherence results from the attitude characterized by protectiveness, tolerance, respect for other people and responsibility (Np.+). The sense of coherence in males may be explained by autonomy, effectiveness in taking action, determination to achieve a success (Ac-) and independence.

Table 8. Results of multiple regression for the sense of coherence (dependent variable) and transaction analysis scales ACL Test (independent variables)

Females						
Independent variables	R	R sq.	sq. err.	Beta	t	p
NP	0.64	0.41	0.43	0.64	4.60	0.000
Males						
Independent variables	R	R sq.	sq. err.	Beta	t	p
AC	0.64	0.42	0.33	-0.64	-6.21	0.000

## DISCUSSION

The results of this study correspond with the theoretical basis on the sense of coherence which have been presented at the beginning of this study. According to the literature (9, 8) individuals with the high SOC are characterized by determination in task performance, determination to achieve success, a need for order, understanding himself/herself and other people, autonomy, responsibility, confidence in own talents and ability to make creative use of their resources.

At the same time results of studies reveal that the individuals with a low sense of coherence are characterized by low self-esteem, lack of trust in themselves and others, tendency to humiliate themselves and assume the attitude of over-dependence and difficulty in performing tasks, aiming at a goal and coping with problems in everyday life (3, 6).

Finnish studies reveal the relationship between the low sense of coherence, hostility and health problems (7). Individuals with the low sense of coherence, who do not have a sense of self-competence in solving problems and are not able to ask directly for the support from people from their surroundings when they face the problems or traumatic situations, may respond with neurotic disorders that will only intensify a sense of dependence and make interpersonal relations more difficult (11). The positive correlations between the sense of coherence, self-acceptance and the quality of life were proved in the literature (4). Therefore, it is very important to form in the family a positive picture of an individual during childhood, because this will result in the future ability to evaluate real life situations properly, coping with difficult situations and ability to see the sense of ones's own activity, that is the high sense of coherence (10, 12).

The analysis of the problem how personal qualities affect the sense of coherence is the basis for the theory that the personal qualities and needs that create a self-image are strictly connected with the analyzed global life orientation which is described as the sense of coherence.

## CONCLUSIONS

In neurotic patients: 1. Significant positive correlations were found between the SOC and self-concept. 2. Self-rejection, self-hostility, dejection, anxiety are connected with the low SOC. 3. The high SOC coexists with the intensification of needs that are necessary to perform the tasks, aim at a goal, achieve a success and also with the needs which are necessary to form friendly interpersonal relations. 4. The high SOC is connected with a sense of trust in an individual and with his own abilities, ambitions,

good personal adjustment, effectiveness in solving problems and empathy. 5. The low SOC is connected with personal qualities that indicate some problems in perception of one's own abilities, in performing tasks, achieving goals and solving problems and tendency to become disorganized under stress. In interpersonal relations the individuals with neurotic disorders and the low SOC are characterized by scepticism, defensive attitude towards other people, and also tendency to humiliate themselves and be dependent on others in their surroundings. 6. The high SOC in women is conditioned by such personal qualities as: persistence, ability to take the initiative when facing some tasks, ability to solve problems successfully, a practical and sensible attitude to problems and also the ability to start friendly close interpersonal relations, respect for other people and good personal adjustment. 7. The high SOC in men depends on such personal qualities as: a strong need for persistence in achieving goals, ability to form close interpersonal relations with other people, good personal adjustment, autonomy and ability to enjoy life and fulfil social functions.

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#### SUMMARY

The aim of the study was to assess correlations between a sense of coherence (SOC) and self-concept in neurotic patients. There were used in the study (1) the authorized Polish adaptation of the Orientation to Life Questionnaire (SOC-29) by Antonovsky and (2) Adjective Check List ACL by Gough and Heilbrun. Subjects in the study were 101 patients (69 females and 32 males), mean age 32 years, with neurotic disorders defined according to ICD-10 criteria. Significant positive correlations were found between SOC and self-concept. The low sense of coherence (SOC) in neurotic patients is connected with personal qualities that indicate some problems in perception of

own abilities, in performing tasks, achieving goals and solving problems, and tendency to become disorganized under stress. In interpersonal relations the individuals with neurotic disorders and the low sense of coherence are characterized by scepticism, defensive attitude towards other people, and tendency to humiliate themselves, and be dependent on others in their surroundings. The high SOC may be connected with effectiveness in solving problems, empathy, needs of understanding oneself and others, traits pointing to personal and interpersonal adjustment, emotional sensitivity, openness, readiness to cooperate, ability to enjoy life.

#### Osobowościowe uwarunkowania poczucia koherencji (SOC) u pacjentów z zaburzeniami nerwicowymi

Celem badań było określenie zależności między poczuciem koherencji a elementami obrazu siebie u osób z zaburzeniami nerwicowymi. W badaniach zastosowano Kwestionariusz Orientacji Życiowej SOC-29 Antonovsky'ego i Test Przymiotnikowy ACL Gougha i Heilbruna. Grupę badaną stanowiło 101 pacjentów (69 kobiet i 32 mężczyzn), średnia wieku 32 lata, z rozpoznaniem zaburzeń nerwicowych, postawionych na podstawie kryteriów ICD-10. Poczucie koherencji dodatnio koreluje z obrazem siebie. Niski poziom poczucia koherencji łączy się w badanej grupie pacjentów z zaburzeniami nerwicowymi z cechami obrazu siebie wskazującymi na trudności w dostrzeżeniu swoich możliwości w realizacji celów, zadań i rozwiązywaniu problemów oraz uleganiu dezorganizacji w sytuacji stresowej. W zakresie relacji interpersonalnych osoby z zaburzeniami nerwicowymi i niskim poziomem poczucia koherencji charakteryzuje sceptycyzm, nastawienie obronne wobec innych ludzi, a także tendencja do poniżania siebie i uzależniania się od otoczenia. Wysoki poziom poczucia koherencji może wiązać się z cechami warunkującymi dobre przystosowanie osobiste, empatią, potrzebą rozumienia siebie i innych, otwartością, gotowością do współpracy i umiejętnością cieszenia się życiem.