

mgr AGNIESZKA SKOWERSKA

AGRESJA A UMIEJSCOWIENIE POCZUCIA KONTROLI U  
PACJENTÓW Z ROZPOZNANIEM SCHIZOFRENII

AGGRESSION AND LOCUS OF CONTROL IN PATIENTS  
DIAGNOSED WITH SCHIZOPHRENIA

Rozprawa doktorska na stopień doktora  
w dziedzinie nauk medycznych i nauk o zdrowiu  
w dyscyplinie nauki o zdrowiu  
przedkładana Radzie Dyscypliny Nauk o Zdrowiu  
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Promotor:

Dr hab. n. med. Łukasz Czyżewski

Promotor pomocniczy:

Dr n. med. Dorota Parnowska

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# **Abstract**

## **Introduction**

Schizophrenia is a condition considered to be one of the most severe mental illnesses. Epidemiological studies indicate that the prevalence of schizophrenia in the general population is approximately 1%. The prevalence of the condition is similar across countries and cultures, with few exceptions.

An important factor affecting the process of treatment and recovery of patients diagnosed with schizophrenia is the presence of aggressive behaviours. These behaviours manifest themselves in the form of impatience on the part of the patient, violent demand for their needs to be met immediately, or as a result of rejection of the proposed treatment.

An individual's locus of control also influences the process of recovery from schizophrenia. According to certain studies, a person with an internal locus of control cares more about their health, sets goals and works harder and more persistently to achieve them, and attributes the causes of events to their own actions. Patients with an external locus of control place blame for what is happening in their life on others. They believe that any failures or hardship are primarily attributable to fate, God, parents, or difficult past.

## **Purpose of the study**

Analysis of the results of a study comparing individuals diagnosed with schizophrenia and a control group from a healthy population with respect to the level of aggression and anxiety and its relation to the locus of control, as well as the evaluation and analysis of the research hypothesis to confirm or reject the statement that patients with an external locus of control display higher levels of aggression.

## **Material and methods**

This Ph.D. dissertation study was carried out in the form of a case-control survey. The study was conducted between 2019 and 2022. A total of 60 patients with an ICD-10 diagnosis of schizophrenia, who met the established criteria and agreed to participate in the research project, were enrolled in the study. The sample group consisted of inpatients of the day psychiatric wards and 24-hour rehabilitation wards of the Mazowieckie Province Hospital “Drewnica” (*Mazowiecki Szpital Wojewódzki “Drewnica”*) in Żąbki, Poland, and the Institute of Psychiatry and Neurology (*Instytut Psychiatrii i Neurologii*) in Warsaw, Poland. The sample group eligibility criteria

included: age between 18 and 65 years, the absence of severe psychopathological symptoms of the condition, a satisfactory level of compliance in the treatment process, and a GAF (Global Assessment of Functioning) score of  $\geq 50$  points.

The control group consisted of 60 healthy subjects aged between 18 and 65 years. The study was approved by the Research Ethics Board at the Medical University of Warsaw (No. KB/160/2019). The study was conducted in accordance with the provisions of the Declaration of Helsinki. The material for the study was collected using instruments applied to the sample group, such as the International Classification of Diseases (ICD-10), the GAF scale, Buss Perry Aggression Questionnaire (BPAQ), State-Trait Anxiety Inventory (STAI), Locus of Control Scale, standardised Delta Questionnaire and demographic questionnaire.

## **Results**

The analysis revealed that the level of physical aggression was positively correlated with anxiety as a state ( $R = 0.29$ ;  $P < 0.001$ ), as a trait ( $R = 0.32$ ;  $P < 0.001$ ) and external locus of control ( $R = 0.27$ ;  $P < 0.001$ ). The level of verbal aggression was positively and weakly correlated with the sense of control ( $R = 0.22$ ;  $P < 0.05$ ) and weakly and negatively correlated with the lie scale ( $R = -0.24$ ;  $P < 0.001$ ). Anger, hostility and general aggression were positively correlated with anxiety as a state ( $R = 0.36$ ;  $R = 0.52$ ;  $R = 0.45$ ;  $P < 0.001$ , respectively) and as a trait ( $R = 0.50$ ;  $R = 0.60$ ;  $R = 0.56$ ;  $P < 0.001$ ). The analysis showed that patients with schizophrenia displayed higher levels of physical aggression  $19.84 \pm 6.94$  vs.  $16.72 \pm 4.19$ ;  $P = 0.003$ ), greater hostility  $23.13 \pm 7.11$  vs.  $19.97 \pm 6.16$ ;  $P = 0.010$ ), and overall level of aggression than healthy subjects ( $76.38 \pm 18.81$  vs.  $68.79 \pm 15.23$ ;  $P = 0.016$ ).

## **Conclusions**

The results indicate a statistically significantly higher aggression score for the group of patients diagnosed with schizophrenia compared to a control group from a healthy population. The statistically significantly higher level of aggression in the patient group concerned active aggression, the hostility score and overall level of aggression. The results indicate that higher levels of aggression were displayed by subjects with a stronger external locus of control.