

# RELATIONSHIP BETWEEN POSITIVE AND NEGATIVE SYMPTOMS WITH DIMENSIONS OF QUALITY OF LIFE IN PATIENTS WITH SCHIZOPHRENIA

Fatime TAIRI<sup>1</sup>, Gordana STANKOVSKA<sup>2</sup>, Sara SADIKI<sup>2</sup>

<sup>1</sup>Trainee in Medical Psychology, University Clinic for Psychiatry and Psychology Ss Kiril and Methodius University, Clinical Hospital-Tetovo, North Macedonia.

<sup>2</sup>Faculty of Philosophy, University of Tetovo, North Macedonia.

\* Corresponding Author: e-mail: Fatime-tairi@hotmail.com

---

## Abstract

**Introduction:** Schizophrenia is an endogenous psychotic disorder, which is characterized by the presence of positive and negative symptoms that affect the normal functioning of patients and play important role in their quality of life.

**Purpose:** The main purpose of this research was to introduce the relationship between positive and negative symptoms and quality of life in patients with schizophrenia.

**Methods:** The research involved 40 randomly selected male and female respondents from 18 to 60 years of age who suffer from schizophrenia according to the diagnostic criteria of the International Classification of Diseases – ICD 10. The instruments used are: the Positive and Negative Syndrome Scale (PANSS), and the Scale for the quality of life (WHOQOL Questionnaire - BREF). The statistical analysis of the data was done with the SPSS software package (version 20).

**Results:** The study showed that there is a statistically significant negative relationship between positive symptoms of schizophrenia and mental health ( $r = -.682, p < .01$ ), positive symptoms and social relationships ( $r = -.764, p < .01$ ), positive symptoms and living conditions ( $r = -.732, p < .05$ ). Regarding negative symptoms of schizophrenia and dimensions of quality of life, it was found that there is a statistically positive significant relationship between negative symptoms of schizophrenia and physical health ( $r = .833, p < .01$ ); negative symptoms of schizophrenia and mental health ( $r = -.752, p < .05$ ); negative symptoms of schizophrenia and social relationships ( $r = .831, p < .01$ ); and negative symptoms of schizophrenia and living conditions ( $r = .850, p < .01$ ).

**Conclusion:** Quality of life is a broad concept that includes a person's subjective opinion regarding their physical and psychological health, social relationships and the environment. This study emphasizes that positive symptoms of schizophrenia negatively affects the dimensions of quality of life in all the above-mentioned areas.

*Keywords:* Schizophrenia, positive and negative symptoms, dimension of quality of life.

---

## 1. Introduction

*1.1 Schizophrenia:* Schizophrenia is part of the group of endogenous psychoses, which is characterized by the presence of positive and negative symptoms that affect the normal functioning of patients with schizophrenia and play a very important role in the quality of life of these patients. The very name of the disease adequately explains one of the most important characteristics which is the separation or dissociation of individual psychic functions and above all between thinking and affect and the cognitive function of the person with schizophrenia. Thinking in patients with schizophrenia is not accompanied by adequate affect. We do not encounter this disorder in other mental illnesses. Schizophrenia is part of the group of endogenous psychoses, which develop with complex interaction as the predisposition of this disease and the many inadequate functions of the external environment. This mental disorder was first described by Emil Krepelin, while Eugen Bleuer in 1911 called it schizophrenia for the first time and established the concept of "4a" symptoms: disorder of associations, affect, autism and ambivalence. The first symptoms of the disease usually appear in the period of

adolescence or in the period of maturity, they appear the same in both men and women (Kolicanin, 1997).

Schizophrenia is a mental health illness that only occurs in approximately 1% of the general population. The many studies that have been done regarding the disorder of schizophrenia show that this disease is universal and the same in every part of the world, there is no society, civilization, population or social stratum in which this disease is not presented as such. The same studies have shown that the frequency of the appearance of the disease in urban environments is higher in the lower socioeconomic classes.

The symptoms that are characteristic of the disease of schizophrenia are: the disorder of perception, which includes auditory hallucinations and the disorder of the thinking process, the presence of delusions, overestimated and unrealistic beliefs or ideas, inappropriate and disorganized speech. The symptoms often cause difficulties in assessing and establishing contact with reality, as a result of which the patient presents inappropriate and unacceptable behavior from the social circle. Hallucinations are present in almost the majority of patients with schizophrenia, in particular auditory hallucinations, so patients hear different voices that give you messages, orders, different advice, often patients think that they have different special abilities that most people do not have them, that they have a special mission, that they are controlled electronically, that someone observes them and prepares conspiracies against them and the like. In the disease of schizophrenia, symptoms such as illogical speech, lack of motivation, emotional deficit, inability to feel pleasure, have a poorer quality of life, it often happens that these patients isolate themselves and reduce social contacts and daily activities. This disorder appears in episodes in which the symptomatology also changes, especially when the disease is in an active phase, the patient has a decline in most vital functions, difficulties in regulating emotions, difficulties and decline in the quality of life and marked difficulties in social functioning.

It is almost impossible for the symptoms to be reduced or disappear spontaneously, without the help of pharmacological therapy, psychotherapy and socio-therapy, with the help of which it is possible to improve the emotional aspect, the improvement of the quality of life as well as the improvement of the social functioning of the patient. the patient. It is important to mention that even in the period of remission the patient may encounter difficulties in the social aspect due to social withdrawal, apathy, inability to integrate in the social environment, they are often prejudiced and have difficulties in finding a job even though in most cases are with a high level of education.

With the help of psychopharmacotherapy, these patients have a good progress, however, it is estimated that only 20-30% of patients respond well to drug therapy and continue life in the same way as before the appearance of this disease, in about 20-30% symptoms of pronounced symptoms of schizophrenia, while about 40-60% of patients have low quality of life and reduced psycho-social function (Mueser, Bellack & Morrison, 2010).

*1.2 Quality of life in patients with schizophrenia:* The issue of the quality of life of psychiatric patients is a common topic in today's society especially when it comes to hospitalizations and social labeling of patients with mental health problems in general and patients with schizophrenia in particular. Stigmatization is known as one of the factors that contributes to reducing the quality of life of patients with schizophrenia. Patients accept and internalize the prejudices others have about them and as a result self-stigmatization occurs (Bandić, Brigić & Leutar, 2020). According to Adrić and Babić's research, it has been shown that patients with mental health problems have a lower economic status and also have a reduced ability to adapt. This research also showed that the low quality of life of schizophrenic patients is also related to physical health, mental health, health and social relationships and the environment in which they live. In this study, the results showed that psychiatric patients have a reduced quality of

life in terms of social relations and that the number of hospitalizations negatively affects the quality of life (Adrić & Babić, 2015). In the Halmi and Laslavić study, it was proven that a higher level of social functioning affects the higher quality of life of psychiatric patients and that the structure of the quality of life has no correlation with age (Halmi & Laslavić, 2002). The results of the research of Elhadad and his colleagues showed that the quality of life is not related to the gender of the subject and it was shown how single people expressed that they have a higher quality of life compared to married people, while married people expressed that they have higher quality of life than divorce (Elhadad, Ragab & Atia, 2020 ). According to a study by Mapatwana and colleagues, an important predictor of quality of life has been shown to be residual psychiatric symptomatology and it adversely affects subjective quality of life. Research also showed how social support has a positive psychological effect on quality of life, both socially and environmentally (Mapatwana et al., 2018).

According to the bio - psycho -social point of view, the quality of life is increasingly considered the ideal of modern medicine because it also allows ethical advances in clinical evaluation methods. We are contemporaries of the era in which a significant extension of the duration of human life was made, so that the necessity of modern man becomes the aspiration for "Life is added in years" (Zagorščak et al., 2017). A large number of professional publications and hundreds of scientific journals are being added more and more related to the quality of life in the field of medicine and psychology. As an academic discipline, quality of life first came into use in the 1970s, and was confirmed in 1974 by a scientific journal, Social Indicators Research. Other important publications such as Journal of Happiness Studies, a multidisciplinary journal that allows discussions about the topic of what are the two main bases in happiness research: 1) theoretical experiments of life well-being and (Adrić & Babić, 2015) empirical research of well-being subjectivity.

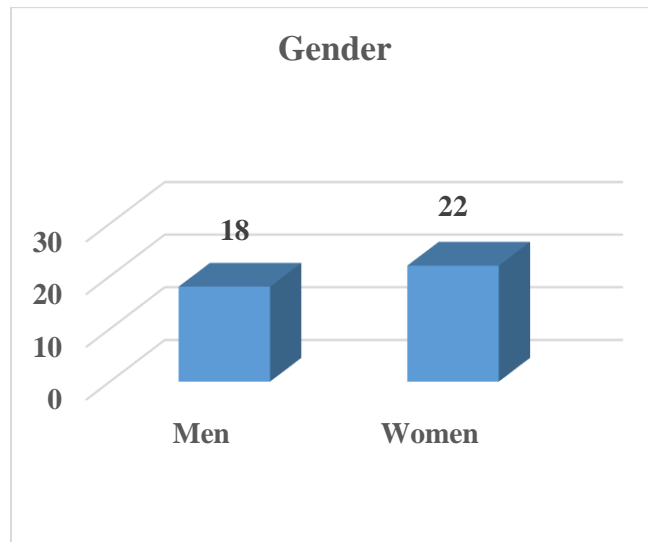
Over the past 30 years, quality of life has become a rapidly growing discipline fully embraced by governments, agencies and foreign public sectors around the world, with the demand to measure and compare the change in quality of life within and between communities, cities, region and country. Many studies have been done on the quality of life sponsored by organizations such as UNESCO, OECD and the World Health Organization (Guedes de Pinho, Pereira & Chaves, 2018).

## **2. Methodology**

A total of 40 male and female patients, aged 18-60, participated in this research. All patients were diagnosed with schizophrenia according to the criteria of the International Classification of Diseases and Related Health Problems (ICD-10). All patients were followed by a psychiatrist and a psychologist throughout the time that the questionnaire was applied. For the realization of this research, we used the scale for the assessment of positive and negative symptoms of schizophrenia - PANNS, as well as the scale for the assessment of the dimensions of quality of life (WHOQOL Questionnaire – BREF). The statistical analysis of the data was done with the software package SPSS (Statistical Package for the Social Science, version 20).

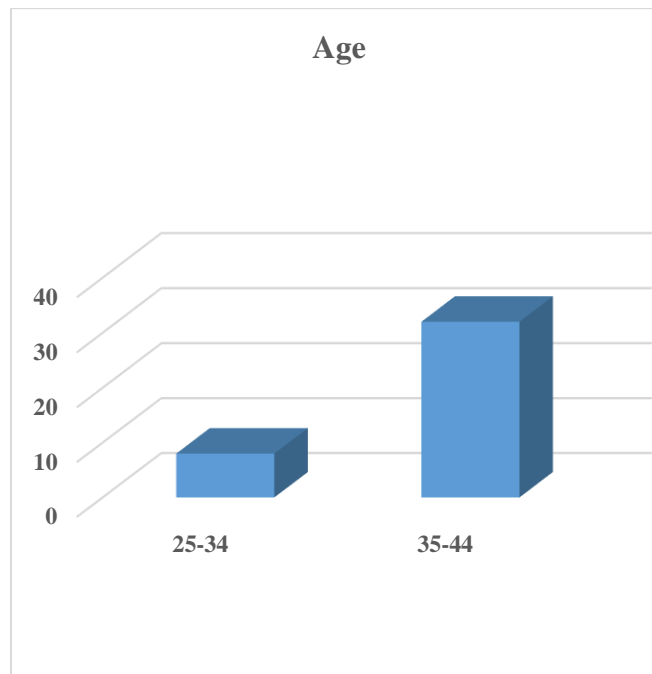
## **3. Results**

According to the data of our research, the group of respondents consists of 40 patients with a diagnosis of schizophrenia established according to the criteria of the International Classification of Diseases and Problems Related to Health (ICD-10), of which 18 are men and 22 are women (Graph 1):



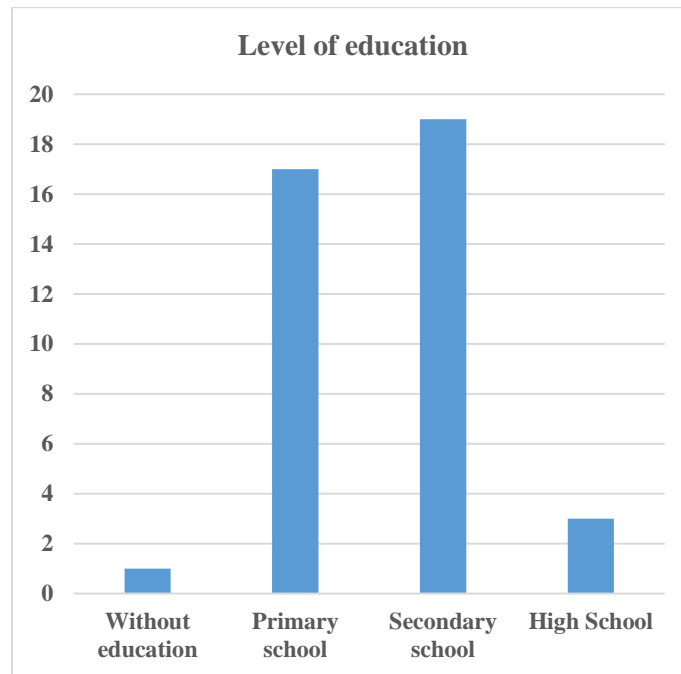
**Chart 1.** Structure of respondents by gender

As we know, schizophrenia appears in different periods of an individual's life, so below we will present the structure of the subjects participating in the research according to age:



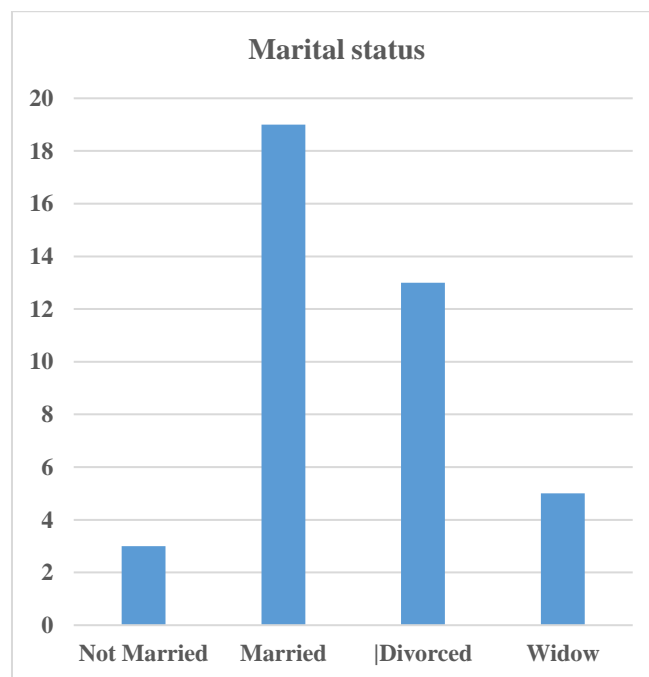
**Chart 2.** Structure of respondents by age

Analyzing the results of our research, in the population we researched, patients with primary and secondary education dominate (Graph 3):



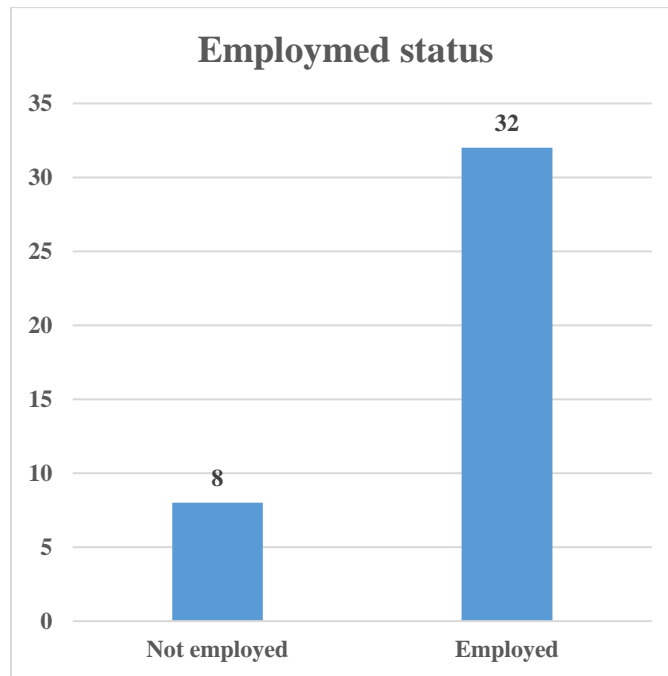
**Graph 3.** The structure of the respondents according to the level of education

The results obtained from our research show that the marital status of the respondents is as follows: three are single, 19 are married, 13 are divorced and 5 are widowed.



**Chart 4.** Structure of respondents according to marital status

It is already known that the profession shapes the character, structure and behavior of the individual. It represents a social relationship through which man secures his economic existence and his social status. In our research, 32 respondents with schizophrenia are employed and 8 respondents are not employed.



**Chart 5.** Structure of respondents according to work status

In our research, we managed to prove that there is a connection between the quality of life and the psychopathological symptoms of schizophrenia. Regarding the data from Table 1, it can be seen that in patients with schizophrenia the average value of physical health is  $M=21,700$ , mental health is  $M=19,925$ , social relations is  $M=10,050$  and living conditions  $M=27,612$ .

**Table 1.** Descriptive statistics of dimensions of quality of life in patients with schizophrenia

| Patients with schizophrenia | Physical health | Mental health | Social relationship | Living conditions |
|-----------------------------|-----------------|---------------|---------------------|-------------------|
| <b>Mean value</b>           | <b>21.700</b>   | <b>19.925</b> | <b>10.050</b>       | <b>27.612</b>     |
| <b>Minimum</b>              | <b>16</b>       | <b>10</b>     | <b>5</b>            | <b>14</b>         |
| <b>Maximum</b>              | <b>26</b>       | <b>33</b>     | <b>14</b>           | <b>52</b>         |
| <b>N</b>                    | <b>40</b>       | <b>40</b>     | <b>40</b>           | <b>40</b>         |

Using Pearson 's correlation, we proved that there is a statistically significant relationship between positive symptoms and mental health ( $r= -.682$ ,  $p<.01$ ), positive symptoms and social relationships ( $r= -.764$ ,  $p<.01$ ), symptoms positive and living conditions ( $r=-.732$ ,  $p<.05$ ), while negative correlation between positive symptoms and physical health ( $r= -.688$ ,  $p>.01$ ) (Table 2).

**Table 2.** Correlation between positive symptoms and dimensions of quality of life in patients with schizophrenia

| <b>Correlations</b>        |                          |                        |                      |                            |                          |
|----------------------------|--------------------------|------------------------|----------------------|----------------------------|--------------------------|
| <b>Pearson Correlation</b> | <b>Positive symptoms</b> | <b>Physical health</b> | <b>Mental health</b> | <b>Social relationship</b> | <b>Living conditions</b> |
| <b>Positive symptoms</b>   | <b>1</b>                 |                        |                      |                            |                          |

|   |                |               |               |               |          |
|---|----------------|---------------|---------------|---------------|----------|
| <b>Physical health</b>  | <b>-.688</b>   | <b>1</b>      |               |               |          |
| <b>Mental health</b>  | <b>-.682**</b> | <b>.706**</b> | <b>1</b>      |               |          |
| <b>Social relationship</b>                                    | <b>-.764**</b> | <b>.753**</b> | <b>.749**</b> | <b>1</b>      |          |
| <b>Living conditions</b>                                      | <b>-.732*</b>  | <b>.787**</b> | <b>.764**</b> | <b>.810**</b> | <b>1</b> |
| * . Correlation is significant at the 0.05 level (2-tailed).  |                |               |               |               |          |
| ** . Correlation is significant at the 0.01 level (2-tailed). |                |               |               |               |          |

On the other hand, negative symptoms are correlated with physical health ( $r = .833$ ,  $p < .01$ ), mental health ( $r = -.752$ ,  $p < .05$ ), social relationships ( $r = .831$ ,  $p < .01$ ) and living conditions ( $r = .850$ ,  $p < .01$ ), we conclude that the whole hypothesis is accepted (proved) (Table 3).

**Table 3.** The relationship between negative symptoms and dimensions of quality of life in patients with schizophrenia

| <b>Correlations</b>   |                          |                        |                      |                            |                          |
|---|--------------------------|------------------------|----------------------|----------------------------|--------------------------|
| <b>Pearson Correlation</b>                                    | <b>Negative symptoms</b> | <b>Physical health</b> | <b>Mental health</b> | <b>Social relationship</b> | <b>Living conditions</b> |
| <b>Negative symptoms</b>                                      | <b>1</b>                 |                        |                      |                            |                          |
| <b>Physical health</b>  | <b>.833**</b>            | <b>1</b>               |                      |                            |                          |
| <b>Mental health</b>  | <b>.752*</b>             | <b>.706**</b>          | <b>1</b>             |                            |                          |
| <b>Social relationship</b>                                    | <b>.831**</b>            | <b>.753**</b>          | <b>.749**</b>        | <b>1</b>                   |                          |
| <b>Living conditions</b>                                      | <b>.850**</b>            | <b>.787**</b>          | <b>.764**</b>        | <b>.810**</b>              | <b>1</b>                 |
| * . Correlation is significant at the 0.05 level (2-tailed).  |                          |                        |                      |                            |                          |
| ** . Correlation is significant at the 0.01 level (2-tailed). |                          |                        |                      |                            |                          |

#### 4. Conclusion

Contemporary psychology has its focus on the integration of various psychological theories and the conception of contemporary neurophysiological discoveries. The focus and ongoing efforts of psychology as a science on mental health is to integrate psychotherapeutic and pharmacological interventions with the sole purpose of improving the quality of life of people with mental illness (Buckley et al., 2009).

The essential focus of numerous research related to this disease is on the reduction of psychotic symptoms (achieving symptomatic remission), which enables better functioning of the patient (functional remission) and their better and better rehabilitation and resocialization. fast, and with this also a better quality of life.

Almost every disease, especially mental health diseases, which includes schizophrenia as such, presents a stressful event in the life of the patient with schizophrenia, which affects the quality of life of these patients. The contemporary concept of schizophrenia emphasizes the outcome of the disease, where the essential focus is on the reduction of psychotic symptoms (achieving symptomatic remission), which enables better functioning of the sick (functional remission) and their rehabilitation and resocialization better and faster, and with this also a better quality of

life.

According to a larger number of research, the first five years of the disease represent a key period in which the course and outcome of the disease are defined, so that 50-70% of patients have different social and psychological consequences from the chronic course of the disease which appear during the duration of the disease.

It is now known that schizophrenia is a disease that has a chronic course, a clinical syndrome that includes specific psychological symptoms, individual beliefs about the clinical picture, the way of responding to therapy and the course of the disease, including a decrease in the person's functional capacity in all aspects such as personal, family, work and social aspects.

The main goal of this research was to prove whether we have a relationship between positive and negative symptoms and dimensions of quality of life in patients with schizophrenia.

The hypothesis that we put forward that there is a statistically significant relationship between positive and negative symptoms and dimensions of the quality of life of patients with schizophrenia has been fully confirmed. The results we have obtained go in favor of the hypothesis that we have a statistically significant negative correlation between positive symptoms of physical health, mental health, and social relationships, which means that with the appearance of positive symptoms of schizophrenia patients inevitably have a decrease in health physical and mental as well as in social relationships and in the reduction of the quality of life, while we observed a negative correlation between positive symptoms and life conditions, which means that in relation to the presentation of positive symptoms of schizophrenia, life conditions do not play any role Important. At the same time, we prove that we have a statistically significant presence between negative symptoms and physical health, mental health, social relationships and life conditions, which means that with the appearance of negative symptoms we will have difficulties and problems in physical health, withdrawal and social isolation and deterioration of living conditions as a result of the dominance of negative symptomatology. A similar study, which was done by Adrić and Babić, is related to the result of our research, where it shows that the low quality of life of schizophrenic patients is related to physical health, mental health, social relationships and the environment in which they live. In this study, the results showed that psychiatric patients have a reduced quality of life in terms of social relationships and the number of hospitalizations.

When analyzing the results of this research, we also realized that the subject's gender is not a predictor for the development of psychopathological symptoms of schizophrenia, while age is seen as a key factor in the course of the disease and the worsening of symptoms, whether positive or negative. We note that the level of education also plays a role in the course of the disease, while the marital status has no correlation with the result of general psychopathology. The results obtained from this research may be important for the detection, intervention and treatment of schizophrenia disorder. These results can be oriented in the direction of helping mental health professionals, be they psychiatrists, psychologists, or even secondary personnel in order to diagnose and treat this disease as quickly as possible, in this way, the return is made as quickly as possible. the patient's normal functioning and affects the improvement of the quality of his life. When analyzing quality of life outcomes of patients suffering from schizophrenia, emphasis is placed on satisfaction with activities of daily living and social interaction in the patient's environment (Opalić & Nikolić, 2008). According to the research of Ristić and Batinić, it has been shown that the deficit of emotions in patients with schizophrenia is associated with social dysfunction and with a subjective assessment of a lower quality of life and how the quality of life is related to each other in relation to social functioning (Ristić & Batinić, 2020).

Psychoeducation in its definition as a word means the preparation for informing and educating service users with serious mental illness (including schizophrenia) about the diagnosis, treatment of the illness, appropriate resources, prognosis, the most common strategies for



coping with the illness as well as his rights (Pekkala & Merinder, 2002). With the right psychiatric and psychological help, through pharmaceutical therapy, counseling and psychotherapy, patients can be helped to accept the disease more easily and quickly, and in this way the treatment will be easier.

Based on the theoretical analysis of the empirical data of this research, we can say that even though we have achieved the stated goals, we are still aware that this research leaves room for the practical application of the results, but at the same time it also represents a stimulus and incentive for the researchers. others to do further research that would allow us to better understand this complex problem in our clinical practice.

## References

- [1]. Adrić, I. & Babić, D., (2015). Kvaliteta života kroničnih duševnih bolesnika. *Zdravstveni glasnik*, 1(2):15-23.
- [2]. Bandić, I., Brigić, M. & Leutar, Z., (2020). Kvaliteta života osoba s poteškoćama mentalnog zdravlja. *Mostriensia: časopis za društvene i humanističke znanosti*, 24.1:89-107.
- [3]. Buckley, P. F., Miller, B. J., Lehrer, D. S., & Castle, D. J. (2009). Psychiatric comorbidities and schizophrenia. *Schizophrenia Bulletin*, 35(2), 383-402.
- [4]. Elhadad, A., Ragab, A. & Atia, S., ((2020). Psychiatric comorbidity and quality of life in patients undergoing hemodialysis. *Middle East Current Psychiatry*, 27:1-8.
- [5]. Guedes De Pinho, L., Pereira, A. & Chaves, C., (2018). Quality of life in schizophrenic patients: the influence of sociodemographic and clinical characteristics and satisfaction with social support. [10.1590/2237-6089-2017-0002](https://doi.org/10.1590/2237-6089-2017-0002)
- [6]. Halmi, A. & Laslavić, A., (2002). Akcijska istraživanja kvalitete života osoba s različitim duševnim poremećajima u Republici Hrvatskoj.
- [7]. Kolicanin, M., (1997). Psihijatrija, Beograd: Medicinska knjiga
- [8]. Mapatwana, D., Tomita, A., Burns, J. & Robertson, L., (2018). Predictors of quality of life among community psychiatric patients in a peri-urban district of Gauteng province, South Africa. *South African Journal of Psychiatry*.
- [9]. Mueser, K. T., Bellack, A. S. & Morrison, R. L., (2010). Social competence in schizophrenia: premorbid Adjustment, social skill and domains of functioning. *Journal of Psychiatry Research*, 24:51-63.
- [10]. Opalić, P. & Nikolić, S., (2008). Evaluation of schizophrenic patients quality of life. *Vojnosanitetski pregled*, 65.5:383:391.
- [11]. Pekkala, T. E. & Merinder, B. L., (2002). Psychoeducation for schizophrenia. *Cochrane Library*, <https://doi.org/10.1002/14651858.CD002831>.
- [12]. Ristić, B. & Batinić, B., (2020). Opažanje emocija kao prediktor socijalnog funkcionisanja i kvaliteta života kod pacijenata obolelih od shizofrenije. *Psihološka istraživanja*, 23.2:161-185.
- [13]. Zagorščak, K., Buhin Cvek, A., Sajko, M. & Božičević, M., (2017). Attitudes and Prejudices of Nursing Students Towards Psychiatric Patients. *Professional paper*