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Effectiveness of health education in forensic psychiatry departments

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Summary

Aim. The subject of the study was to assess the therapeutic value of the author's health education programme developed for a group of patients of forensic psychiatry wards conducted in a group of patients long-term isolated from their natural environment. The main goal of the study was to answer the question of whether health education conducted in forensic psychiatry wards is effective and what value it represents in the process of treatment and rehabilitation of patients in forensic psychiatry wards.

Material and methods. The study was conducted at the State Hospital for the Nervous and Mentally Ill in Rybnik in the forensic psychiatry wards from December 2019 to May 2020. During the study, patients gained knowledge in the field of broad health education. The study group consisted of 67 men between the ages of 22 and 73 with a diagnosis of schizophrenia. The method of measuring twice (before the health education cycle and after its completion) was applied using a proprietary questionnaire of patients' knowledge from the applied educational programme.

Results. After the implementation of the health education programme, there was a significant improvement in patients' knowledge.

Conclusions. Educational activities carried out among patients of forensic psychiatry departments effectively increase their knowledge level.

Key words: health education, forensic psychiatry, schizophrenia

Introduction

Epidemiological studies conducted in different parts of the world consistently come to the same conclusion that mental disorders are highly prevalent, cause high direct and indirect healthcare costs, and are mostly undetected and untreated. Mental health literacy, the stigma of mental disorders, and the lack of knowledge and inadequate skills in recognizing mental disorders by healthcare workers and in coping with them by patients, are commonly cited as reasons for the high unmet needs in global mental health [1, 2].

Education of a schizophrenic patient residing in a forensic psychiatry department is a multidimensional and long-term process aimed at leading the patient to function correctly in society, in accordance with the accepted social and legal order. The education process is not only about mental health issues but also about learning to express one's own opinions, beliefs, and reflections and to solve problems independently (if possible) with the support of an educator. Thus, the essence of health education is to equip people with certain competencies, which are subject to change over the course of life, depending on the developmental period and in connection with emerging diseases or dysfunctions. These health-related competencies can refer to the acquisition of skills to act in the area of prevention or therapy, and the use of new methods of action to actively seek health information through access to various sources of knowledge, including the Internet or other media. Based on new, up-to-date knowledge, they allow the patient to make informed and appropriate behavioral modifications [3, 4]. All these aspects of health education are extremely important in the process of educating people with mental disorders, including patients in forensic psychiatry wards, since the primary purpose of a patient's stay in a forensic psychiatry ward is to prepare the patient for life in the community [5-8].

Thus, health education is one of the forms of rehabilitation interventions that affect the level of knowledge of patients, and the active participation of the patient in psychiatric rehabilitation activities, including health education, is the foundation for regaining social recognition and adaptation, which gives hope for leaving closed psychiatric wards and can be a ticket to freedom. Therefore, when planning educational activities in forensic psychiatry wards, it is important to ensure that they are purposeful and well-thought-out, tailored to the needs of the specific group of patients. Constructing an educational diagnosis for this purpose becomes the first stage of the educational process, which allows for the identification of deficit areas in patients' knowledge, skills, and attitudes regarding mental disorders and social functioning in the broadest sense. These indications then form the basis for planned educational activities. The result of many years of experience in identifying the deficits and educational needs of patients in forensic psychiatry wards, not only in the areas of health and illness but also in social functioning more broadly, was the development of an original health education program for this group of patients. This program became the subject of a study to answer the question of how effective educational interventions are among this group of patients.

Material and methods

Survey design and sample

The study was conducted at the State Hospital for the Nervous and Mentally Ill in Rybnik in the forensic psychiatry wards. The study lasted 6 months, from December 2019 to May 2020. The study included men with a diagnosis of schizophrenia. Male gender and a diagnosis of schizophrenia formed the basis for inclusion in the study group as well as the reference group. Female gender, a diagnosis other than schizophrenia, and lack of patient consent to participate in the study were the exclusion criteria.

A total of 115 patients participated in the study. The study group consisted of 67 men, between the ages of 22 and 73, with a diagnosis of schizophrenia, who participated in an educational program over a period of 6 months (details of the implementation of the educational program are described later in the article). The reference group consisted of 48 male patients with a diagnosis of schizophrenia, of similar age to the patients of the study group, also residing in the forensic psychiatry department. No health education activities were conducted among this group of patients.

Participants who did not complete the entire educational cycle or did not complete the study for other reasons (e.g., discharge from the ward during the program) were excluded from the study. As a result, 61 patients from the study group and 40 patients from the reference group were included in the final health analyses.

Health education program and knowledge test

Since the vast majority of patients in forensic psychiatry departments are men with a diagnosis of schizophrenia, the health education program was designed with this specific group of patients in mind. The program consisted of 40 lectures, lasting 45-60 minutes, which were delivered by psychiatric nursing specialists, twice a week, over a period of 6 months. The lectures were divided into 5 modules, which included patient education in the areas of: (1) social life, (2 and 3) mental health (part 1 and 2), (4) healthy lifestyle, and (5) patient functioning in the forensic psychiatry unit. Topics covered in the lectures included issues of social norms and roles, values in human life, the importance of family, self-diagnosis of one's skills and limitations, conflict resolution, achieving life goals, stress, aggression, violence, schizophrenia, antipsychotic treatment, psychiatric rehabilitation, substance use, physical activity, healthy eating, body hygiene, overweight and obesity, self-monitoring of health, first aid, legal regulations of forensic detention, the Mental Health Protection Act, patient rights, and direct coercion.

The original health education program aimed to equip the patient with essential knowledge regarding health and illness, and also sought to provide information necessary for proper functioning in society. A key element of the conducted research on educational interventions was the assessment of their effectiveness.

Course of the study

The study, both in the study group and reference group, was preceded by a knowledge test, which aimed to assess the initial level of knowledge of all patients participating in the study. The knowledge test consisted of 40 statements strictly related to the topics presented in the educational program, to which the patient answered "yes", "no" or "I don't know". The same test was used after 6 months, i.e., after the completion of the cycle of lectures, to assess the effectiveness of the educational interventions. The course of the study is presented in the figure below.

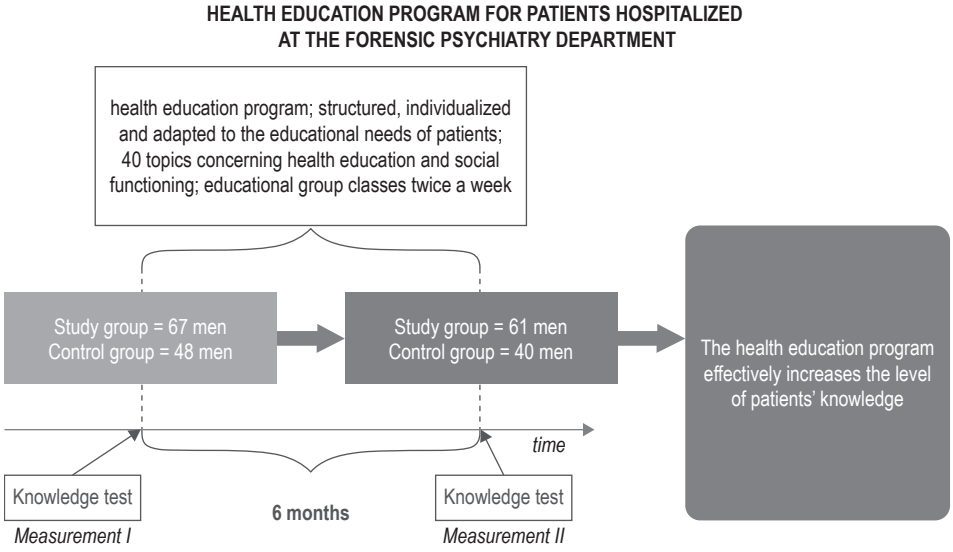

Figure 1. **Graphical presentation of the course of the study**

Results

A total of 115 patients from forensic psychiatry departments participated in the study, of which data were obtained on 101 patients: the study group of 61 patients and the reference group of 40 patients. A total of 14 patients did not complete the study. For all patients, the medical knowledge assessment was scheduled to be measured twice based on a proprietary questionnaire. Of the initial 67 patients in the study group, 61 patients completed the six-month education cycle. In the reference group, out of 48 patients, 40 men participated in the second measurement after 6 months. The reduction in the number of patients was due to various reasons, e.g., refusal to complete the questionnaire, transfer to another ward, discharge from the ward, etc.

Health education knowledge test

Men's overall knowledge concerning health education was assessed as the total number of correct answers to all questions in the test. Table 1 shows the number of correct answers to the health education test questions in the first and second measurements among men in the test and control groups. Fisher's exact test was used for statistical comparison between groups. In the first measurement, statistically significant differences in the frequency of correct answers were obtained for 6 questions. For all these questions in the first measurement, a significantly higher value of correct answers was observed in the study group compared to the reference group ($p < 0.05$). In the second measurement, at the end of the health education cycle, statistically significant differences in the frequency of correct answers were found for 13 questions of the questionnaire. For all of these questions, a higher frequency of correct answers was observed in the study group.

Table 1. **Correct answers to questions in the health education knowledge test – patients with two measurements in the study group and reference group**

	Measurement I			**Measurement II**		
Question No.	Study group (n = 67; 100%)	Control group (n = 48; 100%)	Fisher's exact test	Study group (n = 61; 100%)	Control group (n = 40; 100%)	Fisher's exact test
1	43 (64.2%)	31 (64.6%)	NS (p = 0.56)	**49 (80.3%)**	**20 (50.0%)**	**p = 0.001 (ES = 0.32)**
2	41 (61.2%)	36 (75.0%)	NS (p = 0.09)	56 (91.8%)	34 (85.0%)	NS (p = 0.23)
3	65 (97.0%)	45 (93.8%)	NS (p = 0.34)	**59 (96.7%)**	**30 (75.0%)**	**p = 0.001 (ES = 0.33)**
4	54 (80.6%)	34 (70.8%)	NS (p = 0.16)	49 (80.3%)	30 (75.0%)	NS (p = 0.35)
5	60 (89.6%)	38 (79.2%)	NS (p = 0.10)	**58 (95.1%)**	**31 (77.5%)**	**p = 0.01 (ES = 0.27)**
6	54 (80.6%)	41 (85.4%)	NS (p = 0.34)	**58 (95.1%)**	**33 (82.5%)**	**p = 0.04 (ES = 0.21)**
7	60 (89.6%)	37 (77.1%)	NS (p = 0.06)	56 (91.8%)	33 (82.5%)	NS (p = 0.14)
8	40 (59.7%)	31 (64.6%)	NS (p = 0.37)	**43 (70.5%)**	**19 (47.5%)**	**p = 0.02 (ES = 0.23)**
9	59 (88.1%)	39 (81.3%)	NS (p = 0.23)	**58 (95.1%)**	**29 (72.5%)**	**p = 0.002 (ES = 0.32)**
10	37 (55.2%)	22 (45.8%)	NS (p = 0.21)	**37 (60.7%)**	**15 (37.5%)**	**p = 0.02 (ES = 0.24)**
11	57 (85.1%)	39 (81.3%)	NS (p = 0.38)	55 (90.2%)	34 (85.0%)	NS (p = 0.32)
12	46 (68.7%)	31 (64.6%)	NS (p = 0.40)	43 (70.5%)	28 (70.0%)	NS (p = 0.56)
13	**67 (100%)**	**44 (91.7%)**	**p = 0.03 (ES = 0.22)**	59 (96.7%)	36 (90.0%)	NS (p = 0.17)

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14	62 (92.5%)	41 (85.4%)	NS (p = 0.18)	**59 (96.7%)**	**32 (80.0%)**	**p = 0.008 (ES = 0.27)**
15	43 (64.2%)	24 (50.0%)	NS (p = 0.10)	**39 (63.9%)**	**15 (37.5%)**	**p = 0.008 (ES = 0.26)**
16	64 (95.5%)	46 (95.8%)	NS (p = 0.65)	55 (90.2%)	39 (97.5%)	NS (p = 0.15)
17	59 (88.1%)	45 (93.8%)	NS (p = 0.24)	**58 (95.1%)**	**33 (82.5%)**	**p = 0.04 (ES = 0.21)**
18	57 (85.1%)	43 (89.6%)	NS (p = 0.34)	58 (95.1%)	39 (97.5%)	NS (p = 0.48)
19	**61 (91.0%)**	**37 (77.1%)**	**p = 0.04 (ES = 0.19)**	57 (93.4%)	36 (90.0%)	NS (p = 0.39)
20	**62 (92.5%)**	**33 (68.8%)**	**p = 0.001 (ES = 0.31)**	49 (80.3%)	30 (75.0%)	NS (p = 0.34)
21	55 (82.1%)	36 (75.0%)	NS (p = 0.24)	**54 (88.5%)**	**29 (72.5%)**	**p = 0.04 (ES = 0.21)**
22	**66 (98.5%)**	**42 (87.5%)**	**p = 0.02 (ES = 0.23)**	58 (95.1%)	35 (83.3%)	NS (p = 0.16)
23	59 (88.1%)	38 (79.2%)	NS (p = 0.15)	**57 (93.4%)**	**27 (67.5%)**	**p = 0.0009 (ES = 0.34)**
24	57 (85.1%)	36 (75.0%)	NS (p = 0.13)	53 (86.9%)	29 (72.5%)	NS (p = 0.06)
25	**53 (79.1%)**	**28 (58.3%)**	**p = 0.01 (ES = 0.26)**	51 (83.6%)	31 (77.5%)	NS (p = 0.30)
26	65 (97.0%)	46 (95.8%)	NS (p = 0.56)	60 (98.4%)	36 (90.0%)	NS (p = 0.08)
27	**65 (97.0%)**	**41 (85.4%)**	**p = 0.03 (ES = 0.21)**	**59 (96.7%)**	**33 (82.5%)**	**p = 0.02 (ES = 0.24)**
28	53 (79.1%)	38 (79.2%)	NS (p = 0.59)	47 (77.1%)	32 (80.0%)	NS (p = 0.46)
29	46 (68.7%)	39 (81.3%)	NS (p = 0.10)	43 (70.5%)	29 (72.5%)	NS (p = 0.51)
30	61 (91.0%)	45 (93.8%)	NS (p = 0.44)	57 (93.4%)	40 (100%)	NS (p = 0.13)
31	61 (91.0%)	45 (93.8%)	NS (p = 0.44)	57 (93.4%)	35 (87.5%)	NS (p = 0.25)
32	26 (38.8%)	23 (47.9%)	NS (p = 0.22)	22 (36.1%)	15 (37.5%)	NS (p = 0.52)
33	38 (56.7%)	25 (52.1%)	NS (p = 0.38)	39 (63.9%)	21 (52.5%)	NS (p = 0.17)
34	48 (71.6%)	35 (72.9%)	NS (p = 0.53)	44 (72.1%)	30 (75.0%)	NS (p = 0.47)
35	58 (86.6%)	36 (75.0%)	NS (p = 0.10)	52 (85.3%)	33 (82.5%)	NS (p = 0.46)
36	61 (91.0%)	38 (79.2%)	NS (p = 0.07)	58 (95.1%)	36 (87.5%)	NS (p = 0.16)
37	61 (91.0%)	42 (87.5%)	NS (p = 0.38)	**59 (96.7%)**	**32 (80.0%)**	**p = 0.008 (ES = 0.27)**
38	53 (80.3%)	40 (83.3%)	NS (p = 0.44)	54 (88.5%)	31 (77.5%)	NS (p = 0.11)
39	60 (89.6%)	40 (83.3%)	NS (p = 0.24)	56 (91.8%)	35 (87.5%)	NS (p = 0.35)
40	65 (97.0%)	46 (95.8%)	NS (p = 0.55)	58 (95.1%)	34 (85.0%)	NS (p = 0.09)

Note: ES – effect size; φ – Yule index

Changes in patients' responses to subsequent knowledge test questions after the health education cycle were also analyzed in the test and reference groups (Table 2). If a patient answered a question correctly at the end of the educational cycle (second measurement), and before the start of the cycle (first measurement) his answer was incorrect, such a patient was classified in the "answer improvement" group. In the case of an incorrect answer in the second measurement and a correct answer in the first measurement, the patient was classified as "answer regression." Patients who did not change their responses in both measurements (both correct or both incorrect) were not included in the evaluation of response changes for the entire group. The statistical significance of changes in knowledge test responses in the study and reference groups was tested using Cochran's Q test.

Table 2. **Changes in answers to the health education knowledge test questions of patients in the second measurement in relation to the first measurement in the study and reference groups**

	Study group (*n* = 61; 100%)			**Control group (*n* = 40; 100%)**		
Question No.	Answer improvement	Answer regression	Cochran's Q test	Answer improvement	Answer regression	Cochran's Q test
1	**14 (23.0%)**	**3 (4.9%)**	***p* = 0.008 (ES = 0.12)**	1 (2.5%)	4 (10.0%)	NS (*p* = 0.18)
2	**18 (29.5%)**	**1 (1.6%)**	***p* = 0.0001 (ES = 0.25)**	8 (20.0%)	3 (7.5%)	NS (*p* = 0.13)
3	1 (1.6%)	2 (3.3%)	NS (*p* = 0.56)	0	8 (20.0%)	***p* = 0.005 (ES = 0.20)**
4	7 (11.5%)	8 (13.1%)	NS (*p* = 0.80)	6 (15.0%)	4 (10.0%)	NS (*p* = 0.53)
5	5 (8.2%)	2 (3.3%)	NS (*p* = 0.26)	3 (7.5%)	3 (7.5%)	NS (*p* = 1.00)
6	**10 (16.4%)**	**2 (3.3%)**	***p* = 0.02 (ES = 0.09)**	4 (10.0%)	5 (12.5%)	NS (*p* = 0.75)
7	5 (8.2%)	4 (6.6%)	NS (*p* = 0.74)	4 (10.0%)	2 (5.0%)	NS (*p* = 0.41)
8	13 (21.3%)	7 (11.5%)	NS (*p* = 0.18)	5 (12.5%)	9 (22.5%)	NS (*p* = 0.29)
9	6 (9.8%)	2 (3.3%)	NS (*p* = 0.16)	2 (5.0%)	5 (12.5%)	NS (*p* = 0.26)
10	12 (19.7%)	6 (9.8%)	NS (*p* = 0.16)	5 (12.5%)	5 (12.5%)	NS (*p* = 1.00)
11	8 (13.1%)	4 (6.6%)	NS (*p* = 0.25)	3 (7.5%)	0	NS (*p* = 0.08)
12	11 (18.0%)	10 (16.4%)	NS (*p* = 0.83)	5 (12.5%)	2 (5.0%)	NS (*p* = 0.26)
13	0	1 (1.6%)	NS (*p* = 0.86)	1 (2.5%)	2 (5.0%)	NS (*p* = 0.56)
14	4 (6.6%)	1 (1.6%)	NS (*p* = 0.18)	1 (2.5%)	3 (7.5%)	NS (*p* = 0.32)
15	8 (13.1%)	6 (9.8%)	NS (*p* = 0.59)	4 (10.0%)	6 (15.0%)	NS (*p* = 0.53)
16	3 (4.9%)	6 (9.8%)	NS (*p* = 0.32)	1 (2.5%)	0	NS (*p* = 0.32)
17	6 (9.8%)	2 (3.3%)	NS (*p* = 0.16)	1 (2.5%)	5 (12.5%)	NS (*p* = 0.10)

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18	**9 (14.8%)**	**2 (3.3%)**	**p = 0.03 (ES = 0.07)**	3 (7.5%)	0	NS (p = 0.08)
19	6 (9.8%)	4 (6.6%)	NS (p = 0.53)	6 (15.0%)	1 (2.5%)	NS (p = 0.06)
20	**3 (4.9%)**	**10 (16.4%)**	**p = 0.05 (ES = 0.06)**	2 (5.0%)	1 (2.5%)	NS (p = 0.56)
21	11 (18.0%)	6 (9.8%)	NS (p = 0.23)	4 (10.0%)	4 (10.0%)	NS (p = 1.00)
22	1 (1.6%)	3 (4.9%)	NS (p = 0.32)	2 (5.0%)	2 (5.0%)	NS (p = 1.00)
23	5 (8.2%)	2 (3.3%)	NS (p = 0.26)	2 (5.0%)	5 (12.5%)	NS (p = 0.26)
24	5 (8.2%)	3 (4.9%)	NS (p = 0.48)	4 (10.0%)	3 (7.5%)	NS (p = 0.71)
25	9 (14.8%)	5 (8.2%)	NS (p = 0.29)	6 (15.0%)	1 (2.5%)	NS (p = 0.06)
26	2 (3.3%)	1 (1.6%)	NS (p = 0.56)	0	2 (5.0%)	NS (p = 0.16)
27	1 (1.6%)	1 (1.6%)	NS (p = 1.00)	4 (10.0%)	4 (10.0%)	NS (p = 1.00)
28	6 (9.8%)	7 (11.5%)	NS (p = 0.78)	2 (5.0%)	2 (5.0%)	NS (p = 1.00)
29	8 (13.1%)	8 (13.1%)	NS (p = 1.00)	0	2 (16.7%)	NS (p = 0.16)
30	5 (8.2%)	3 (4.9%)	NS (p = 0.48)	2 (5.0%)	0	NS (p = 0.16)
31	5 (8.2%)	3 (4.9%)	NS (p = 0.48)	1 (2.5%)	4 (10.0%)	NS (p = 0.18)
32	12 (19.7%)	14 (23.0%)	NS (p = 0.69)	4 (10.0%)	4 (10.0%)	NS (p = 1.00)
33	9 (14.8%)	6 (9.8%)	NS (p = 0.44)	5 (12.5%)	2 (5.0%)	NS (p = 0.26)
34	9 (14.8%)	10 (16.4%)	NS (p = 0.82)	4 (10.0%)	2 (5.0%)	NS (p = 0.41)
35	8 (13.1%)	8 (13.1%)	NS (p = 1.00)	8 (20.0%)	5 (12.5%)	NS (p = 0.41)
36	5 (8.2%)	2 (3.3%)	NS (p = 0.26)	4 (10.0%)	2 (5.0%)	NS (p = 0.41)
37	5 (8.2%)	1 (1.6%)	NS (p = 0.10)	3 (7.5%)	5 (12.5%)	NS (p = 0.48)
38	**7 (11.7%)**	**1 (1.7%)**	**p = 0.03 (ES = 0.07)**	0	2 (5.0%)	NS (p = 0.16)
39	7 (11.5%)	5 (8.2%)	NS (p = 0.56)	3 (7.5%)	1 (2.5%)	NS (p = 0.32)
40	2 (3.3%)	3 (4.9%)	NS (p = 0.65)	0	4 (10.0%)	**p = 0.05 (ES = 0.10)**

Note: ES – effect size; n^2Q – Serlin index

In the study group, a statistically significant change in the number of correct answers was obtained for five questions at the end of the health education cycle. These questions were numbered 1, 2, 6, 18, and 38 in the knowledge test. Of these questions, the first three had the highest significance of the change in responses (Cochran's Q test computational significance levels for these questions were $p = 0.008$, $p = 0.0001$, $p = 0.02$, respectively). A statistically significant change in responses, demonstrated by Cochran's Q test ($p = 0.05$), consisting of an increase in wrong answers, was found in the study group for the twentieth question of the knowledge test.

In the reference group, a statistically significant change in responses, demonstrated by Cochran's Q test ($p = 0.005$), consisting of an increase in incorrect answers, was found for two knowledge test questions, numbered 3 and 40. None of the questions for the reference group showed a statistically significant change consisting of an increase in correct answers.

Table 3 shows the distribution of the number of patients in the test and control groups in whom measurements were conducted twice, according to the number of correct answers to the knowledge test questions included in each measurement. Only men with two measurements were analyzed. In the study group for the "less than 30" and "30 to 33" categories, the number of correct answers for the second measurement shows a clear decrease in the number of men included in these categories. In the "less than 30" category, the number of men decreased from 14 to 9, and in the "30 to 33" category, the change was from 16 to 10 men in the second measurement.

Table 3. **Distributions of the number of correct answers to health education knowledge test questions – patients with two measurements in the study group and the reference group**

Number of correct answers	Number of correct answers to knowledge test questions			
	Study group (*n*; %)		**Reference group (*n*; %)**	
	Measurement I	Measurement II	Measurement I	Measurement II
<30	14; 23.0%	19; 14.8%	12; 30.0%	19; 47.5%
30-33	16; 26.2%	10; 16.4%	14; 35.0%	12; 30.0%
34-36	20; 32.8%	20; 32.8%	13; 32.5%	4; 10.0%
37-40	11; 18.0%	22; 36.1%	1; 2.5%	5; 12.5%
*p**	**0.0008** (ES = 0.06)		0.59	

*Wilcoxon test; ES – effect size; *rC* – biserial rank index for matched pairs

Discussion

Health education is defined as a continuous, dynamic, complex, and planned learning process in a variety of settings, including those specific to forensic psychiatry wards. Patients isolated from the natural environment in which they previously functioned are forced to adapt to new conditions. The isolation of a patient in a closed institution further aggravates his disability and pushes back his chances of participating in normal life. These changes depend on the course of the illness, the family situation and relationships within the family, the intellectual level of the patient, and the possibilities and awareness of treatment. Improving patients' knowledge, skills, attitudes, and beliefs regarding their health-related needs and behaviors, within a positive health paradigm, can become a key element of successful rehabilitation and resocialization and a ticket to freedom [9].

Educating patients with schizophrenia not only about mental disorders but also about healthy lifestyles consists of a multidimensional pattern of perception and ac-

tivities that are self-initiated and are committed to maintaining and promoting health and self-improvement. While these activities do not always prevent disease, they often help maintain or improve health through a multifaceted approach that includes self-realization and self-satisfaction. It is worth noting that although health-promoting lifestyle issues are common among schizophrenic patients, scientific research in this aspect is lacking.

Every person affected by a mental disorder has the right to receive situationally appropriate information about his or her illness, its causes, course and various treatment options. Patient awareness is the basis for cooperation in clinical decision-making and a prerequisite for health-promoting behavior.

Experts noted that to optimize the acquisition of knowledge about the disease and reduce the likelihood of relapse, structured education should be offered for a sufficiently long period, and repeatedly if necessary, as part of an overall treatment plan. In addition, the results of a study conducted on a group of patients diagnosed with schizophrenia indicated that after completing the rehabilitation program, the subjects had significantly higher self-esteem, lower levels of hostility, and greater confidence in themselves and other people. They were also characterized by a better insight into the motives behind their behavior, as well as the behavior of others, had a more intense need to care for others and cooperation, to establish close interpersonal ties, greater tolerance and spontaneity, and better adaptation to changing situations [10].

The primary purpose of a patient's stay in a forensic psychiatry unit is to prepare him for life at large in accordance with prevailing social norms. The implementation of modern rehabilitation methods aimed at the needs of a specific group of patients becomes an integral part of cooperation with the patient. In the conducted study, it was shown that educational interventions are effective and therefore show great therapeutic value. Analysis of the results indicated that the medical knowledge of patients in the study group significantly improved after the health education cycle, which was not shown in the reference group. This demonstrates the effectiveness of educational interventions in this group of patients and proves that patients can acquire the specialized knowledge necessary for their functioning despite their mental disabilities.

Providing relevant information and involving patients in treatment and therapy has become an important and effective part of psychiatric care, as evidenced by numerous scientific studies [11-16]. However, none of these studies have been conducted in forensic psychiatry departments, nor have they dealt with health education, which makes the present study innovative, opening up a new area of scientific inquiry.

This study shows that educational interventions are effective among patients with schizophrenia interned in forensic psychiatry wards, and as such can be part of the treatment provided in these wards. Since education and knowledge enhancement are effective among interned patients, educational programs such as the one used in this study could become part of rehabilitation programs for psychiatric patients in forensic psychiatry wards, as well as in all patients treated for schizophrenia.

Conclusions

Health psychoeducation programs are an effective form of therapeutic intervention in a group of patients with schizophrenia treated in forensic psychiatry departments. The fact that educational interventions improve the patient's knowledge and thus contribute to a greater awareness of the patient's life with mental disorders and all its consequences gives hope for an improvement in the patient's social functioning and thus a chance to live in accordance with established social norms.

References

1. Andrade MCR, Slade M, Bandeira M, Evans-Lacko S, Martin D, Andreoli SB. *Need for information in a representative sample of outpatients with schizophrenia disorders.* Int. J. Soc. Psychiatry 2018; 64(5): 476–481. Doi: 10.1177/0020764018776350. Epub 2018 May 22. PMID: 29783875.
2. Ng RMK. *Global psychiatric education.* Int. Rev. Psychiatry 2020; 32(2): 97. Doi: 10.1080/09540261.2019.1695384. PMID: 32114873.
3. Ogórek-Tęcza B. *Edukacja terapeutyczna u osób z zaburzeniami psychosomatycznymi – scenariusze zajęć edukacyjnych.* Kraków: FALL; 2017.
4. Cylkowska-Nowak M. *Podmiotowość i autonomia odbiorcy edukacji zdrowotnej – między teorią a praktyką.* In: Cylkowska-Nowak M, ed. *Edukacja zdrowotna. Możliwości, problemy, ograniczenia.* Poznań: Wydawnictwo Naukowe Uniwersytetu Medycznego im. K. Marcinkowskiego w Poznaniu; 2008. p. 201.
5. Penney SR, Seto MC, Crocker AG, Nicholls TL, Grimbos T, Darby PL et al. *Changing characteristics of forensic psychiatric patients in Ontario: A population-based study from 1987 to 2012.* Soc. Psychiatry Psychiatr. Epidemiol. 2012; 54(5): 627–638. Doi: 10.1007/s00127-018-1619-6.
6. Kottrop A, Heuchemer B, Lie IP, Gumpert CH. *Evaluation of activities of daily living ability and awareness among clients in a forensic psychiatry evaluation unit in Sweden.* Br. J. Occup. Ther. 2013; 76(1): 23–30. Doi: 10.4276/030802213X13576469254658.
7. Hodgins S. *Research priorities in forensic mental health.* Int. J. Forensic Ment. Health 2002; 1(1): 7–23. Doi: 10.1080/14999013.2002.10471157.
8. Minkoff K. *Developing standards of care for individuals with co-occurring psychiatric and substance use disorders.* Psychiatr. Serv. 2001; 52(5): 597–599. Doi: 10.1176/appi.ps.52.5.597.
9. Bilikiewicz A. *Psychiatria. Podręcznik dla studiów medycznych.* Warszawa: Wydawnictwo Lekarskie PZWL; 2007.
10. Samochowiec J, Szulc A, Bieńkowski P, Dudek D, Gałecki P, Heitzman J et al. *Polish Psychiatric Association consensus statement on non-pharmacological methods in the treatment of negative symptoms of schizophrenia.* Psychiatr. Pol. 2021; 55(4): 719–742. Doi: 10.12740/PP/ Online First/135527.
11. Dubreucq J, Ycart B, Gabayet F, Perier CC, Hamon A, Llorca PM et al.; FACE-SZ (Fonda Mental Academic Centers of Expertise for Schizophrenia) group. *Towards an improved access to psychiatric rehabilitation: Availability and effectiveness at 1-year follow-up of psychoeducation, cognitive remediation therapy, cognitive behavior therapy and social skills training in the Fonda Mental Advanced Centers of Expertise-Schizophrenia (FACE-SZ) national cohort.* Eur.

Arch. Psychiatry Clin. Neurosci. 2019; 269(5): 599–610. Doi: 10.1007/s00406-019-01001-4. Epub 2019 Apr 8. PMID: 30963264.

12. Dziwota E, Stepulak MZ, Włoszczak-Szubzda A, Olajossy M. *Social functioning and the quality of life of patients diagnosed with schizophrenia.* Ann. Agric. Environ. Med. 2018; 25(1): 50–55. Doi: 10.5604/12321966.1233566. Epub 2017 Jan 11. PMID: 29575877.
13. Andrade MCR, Slade M, Bandeira M, Evans-Lacko S, Martin D, Andreoli SB. *Need for information in a representative sample of outpatients with schizophrenia disorders.* Int. J. Soc. Psychiatry 2018; 64(5): 476–481. Doi: 10.1177/0020764018776350. Epub 2018 May 22. PMID: 29783875.
14. Svensson K, Hagström J, Blomqvist M, Jormfeldt H. *"Waiting in the Wings" – Next-of-Kin's Experiences of lifestyle interventions for people with schizophrenia.* Issues Ment. Health Nurs. 2020; 41(9): 832–839. Doi: 10.1080/01612840.2020.1731026. Epub May 18. PMID: 32421461.
15. Singla N, Avasthi A, Grover S. *Recovery and its correlates in patients with schizophrenia.* Asian J. Psychiatr. 2020; 52: 102162. Doi: 10.1016/j.ajp.2020.102162. Epub 2020 May 15. PMID: 32562926.
16. Saito M. *Improvement of medication adherence in psychiatry and mental health literacy education.* Yakugaku Zasshi. 2021; 141(4): 541–555. Japanese. Doi: 10.1248/yakushi.20-00218. PMID: 33790121.

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Annex

Initials/patient number……

Author's questionnaire on patient knowledge of health education in the forensic psychiatry department.

1. Setting and achieving goals in life is not important for a person. It is better to live from day to day.
   a. Yes
   b. No
2. A person plays several social roles in his life. Each of these roles involves a specific behavior assigned to a person's given social position.
   a. Yes
   b. No
3. A tolerant person respects others' feelings, views, and beliefs.
   a. Yes
   b. No
4. There is a close relationship between alcohol abuse and violence.
   a. Yes
   b. No
5. People under the influence of alcohol are more likely to commit crimes.
   a. Yes
   b. No
6. A social norm is a guideline for appropriate behavior in a given situation or place.
   a. Yes
   b. No
7. The value system in a person's life determines the direction of actions taken.
   a. Yes
   b. No
8. Conflicts are situations beyond my control, I can't prevent them.
   a. Yes
   b. No
9. How my future will be shaped largely depends on me. I have a lot of influence on how my life will be.
   a. Yes
   b. No
10. An assertive person expresses his own opinions and feelings, often hurting other people in the process. He is guided by the motto – my rights come first.
    a. Yes
    b. No
11. Being a patient in a hospital ward is also a social role. This is evidenced by the need for a certain behavior of a person in the hospital environment.
    a. Yes
    b. No

12. There is no way to cope with stress. It is an emergency situation and I have no control over it.
    a. Yes
    b. No
13. Sleep, moderate physical exercise and a healthy diet are key to maintaining good mental health.
    a. Yes
    b. No
14. Loss of control over one's own behavior can lead to aggressive behavior.
    a. Yes
    b. No
15. Insulting others, gossiping and name-calling are not considered violence. They are a way of expressing one's thoughts and feelings about another person.
    a. Yes
    b. No
16. When dealing with other people, the desirable way to communicate is to remain calm, control emotions and respect each other.
    a. Yes
    b. No
17. A person's appearance – his clothes, hairstyle, makeup in a woman, smell has a significant impact on the perception of others. Appearance can be a hallmark of mental health.
    a. Yes
    b. No
18. Medications used in psychiatry are essential in the treatment process. They guarantee an improvement in the patient's health and well-being.
    a. Yes
    b. No
19. The main reason for relapse of mental illness is the lack of continuation of treatment and the abandonment of pharmacotherapy by the patient.
    a. Yes
    b. No
20. Schizophrenia is an illness I suffer from.
    a. Yes
    b. No
21. A patient in the forensic psychiatry unit can request discharge from the hospital at any time.
    a. Yes
    b. No
22. Forensic detention is the involuntary stay of a patient in a forensic psychiatry ward due to his committing a criminal act under conditions of insanity.
    a. Yes
    b. No

23. Healthy foods include fast food, sweets, sugary soft drinks and fatty meats.
    a. Yes
    b. No
24. To stay healthy, one should avoid physical exercise, as it causes fatigue and weakness.
    a. Yes
    b. No
25. The rule of healthy eating is 5 servings of fruits and vegetables a day.
    a. Yes
    b. No
26. A good relationship within a family is based mainly on mutual respect and love for its members. All members of the family must make every effort to ensure that the relationship within the family is correct – family members should take care of good relations, support one another in difficult times and take care of one another.
    a. Yes
    b. No
27. Cooperation with the treating physician is the foundation of successful therapy and treatment of mental disorders.
    a. Yes
    b. No
28. A patient in a forensic psychiatry unit has the right to visitation, unrestricted correspondence and leaves.
    a. Yes
    b. No
29. Smoking is allowed in healthcare facilities (e.g., hospital).
    a. Yes
    b. No
30. Increasing my knowledge about the illness – its symptoms, treatment, how to cope with it – will benefit my well-being and allow me to function better in my daily life.
    a. Yes
    b. No
31. Relaxation exercises (listening to music, visualization, drawing) help reduce stress and mental tension.
    a. Yes
    b. No
32. In interpersonal communication, non-verbal language is the direct transmission of information.
    a. Yes
    b. No
33. The use of substances, such as alcohol, drugs, and cigarettes, leads to addictions but they are not dangerous to humans.
    a. Yes
    b. No

34. Lung cancer is a disease that is largely preventable by humans.
    a. Yes
    b. No
35. Delusions are disorders of thought, such as false judgments or beliefs, resistant to all argumentation and evidence of their falsity.
    a. Yes
    b. No
36. Schizophrenia involves an abnormal perception of the real world.
    a. Yes
    b. No
37. Feelings of sadness, apathy, sleep disturbances, increasing anxiety, and fear may herald a relapse of mental illness.
    a. Yes
    b. No
38. Forensic psychiatric opinion on the condition of a patient under judicial detention is sent to the court once every 2 years.
    a. Yes
    b. No
39. A patient in a forensic psychiatry unit should actively participate in all kinds of psychiatric rehabilitation activities.
    a. Yes
    b. No
40. The purpose of forensic psychiatry wards is to prepare the patient to live in a social environment in accordance with the prevailing social norms.
    a. Yes
    b. No