

## Effectiveness of therapy in terms of reduction of intensity and elimination of suicidal ideation in day hospital for the treatment of neurotic and behavioral disorders

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### Summary

**Aim.** Analysis of changes in prevalence and intensity of suicidal ideation (SI) in patients who underwent an intensive psychotherapy conducted in integrative approach with predominance of psychodynamic approach in the Day Hospital for Neurotic and Behavioral Disorders.

**Methods.** Symptom checklist KO“O” and Life Inventory completed by 461 women and 219 men who were treated in the day hospital due to neurotic, behavioral and personality disorders in 2005–2013.

**Results.** Patients initially reporting SI showed greater than others global intensity of the neurotic symptoms ( $p < 0.001$  for both sexes) and greater intensity in almost all the neurotic symptoms scales. Improvement (elimination or reduction of intensity) in terms of SI was observed in 84.3% of women and 77.5% of men. The prevalence of SI-reporting patients decreased substantially from 29.1% to 10.2% in women and from 36.5% to 13.7% in men.

**Conclusions.** The patients reporting SI before the commencement of psychotherapy constituted a large part of the studied population – approximately 1/3. They showed greater intensity of neurotic symptoms than those who were not reporting SI. Intensive psychotherapy in the day hospital was characterized by high effectiveness in terms of reduction and elimination of SI. Prevalence of SI in both women and men until the end of therapy decreased almost three times. Cases of improvement in terms of SI were several times more frequent than cases of deterioration in terms of SI (increase in its intensity or its occurrence at the end of therapy). Etiopathogenesis of SI and its methods of treatment require further research.

**Key words:** suicidal ideation, effectiveness of psychotherapy, neurotic symptoms

## Introduction

Psychotherapy is one of the crucial components of the psychiatric treatment. Researchers provide us with variety of definitions of psychotherapy. Generally we may assume that it is “a form of psychosocial influence which aims at correction disordered experiences and behaviors, at eliminating symptoms and causes of illnesses, including personality traits which are responsible for experiencing symptoms. Those influences causing changes in operating mods of organs, experiencing and behavior through modification of psychic processes of the patient. The influences arises within interpersonal relationship between two people or between group members in which psychotherapist is simultaneously treating a number of people” [1].

Effectiveness of many different forms of psychotherapy was confirmed in numerous studies. With its application as the main form of treatment especially beneficial effects are being observed in patients suffering from diverse neurotic, behavioral and personality disorders [2–7].

Relatively less attention in medical literature is directed at effectiveness of psychotherapy in terms of eliminating the symptoms which considerably complicate the treatment of the above mentioned groups of patients. Among such symptoms we encounter suicidal ideations (SI) [8, 9]. In the clinical practice SI are probably the most prevalent problems from the spectrum of manifestations of auto-aggression. According to yet unpublished studies by Sobański et al. concerning psychotherapeutic day hospital population treated between 1980 and 2002, SI are present in one third of patients. At the same time those patients are characterized by greater intensity of typical neurotic symptoms and higher level of neurotic personality traits than patients who do not report SI.

The complications due to presence of SI may occur at each of the stages of the treatment. During the qualification for the therapy SI evoke doubts concerning patients safety in day-care mode [10]. Threat of suicidal behaviors associated with SI requires frequent evaluations. Because of limited tolerance to different kinds of emotional tensions the patients reporting SI require careful choice of psychotherapeutic techniques considering risk of dangerous, auto-destructive behaviors in response to tension-bringing interventions and reactions of other patients. Also other sources of emotional tensions that occur during group therapy such as interpersonal conflicts, tendencies for rivalry or eroticization of the relationship between group members may constitute a threat. Despite special attention which is focused on this group of patients in practice it is not uncommon to see other types of behaviors from the spectrum of auto-aggression that complicate the treatment. Here we can include non-suicidal self-harm, psychoactive substance abuse, including alcohol, or impulsive resignation from therapy.

Diversity of SI and concomitant circumstances are the cause of considerable difficulties for therapeutic team. Interpreting their meaning, as well as management aimed at reducing associated risks bring mounting dilemmas for the medical personnel and supervisors. They are facing a need for elaborating and implementing adequate management plan both for the individual reporting SI and the whole group of co-patients [11], for selecting appropriate psychotherapeutic interventions, ethical attitudes and for considering legal facets [12].

## Aim

The aim of this paper was the analysis of changes in prevalence and intensity of SI in patients who underwent a course of intensive integrative psychotherapy with predominance of the psychodynamic approach in the day hospital for the treatment of neurotic disorders.

## Material and method

In order to determine prevalence and severity of SI (defined as willingness to take one's own life), as well as severity of other symptoms typical for neurotic disorders, the Symptom Checklist KO"O" [13, 14] was used. The patients were examined with this questionnaire twice: initially during the qualification for the treatment [10] and for the second time during the last few days of the therapy. The question on SI that was a basis of this study concerned "arduousness experienced within the last week" of "willingness to take one's own life (question no. 62 in KO"O"). The questionnaire included four answers for the question: the negative one (0) meaning absence of SI, and in case of presence of SI the patient needed to declare the level of the arduousness of SI (beginning from (a) mild SI, through (b) moderate SI and up to (c) severe SI).

The group included 680 individuals: 473 women and 207 men who were treated in psychotherapeutic day hospital due to neurotic, behavioral and personality disorders in the years 2005–2013. Only patients undergoing the treatment for the first time were included in the study.

From the whole studied population there was selected a subgroup of 214 patients (134 women and 80 men) who reported SI at the stage of qualification. In order to determine initial differences between those patients and those who did not report SI we compared their test results in Symptom Checklist KO"O". This allowed us to determine if there are differences between those groups in severity of 14 neurotic symptom types and in global severity of neurotic symptoms (OWK coefficient) [13, 14].

Later in the study the patients' test results both from the stage of qualification and from the last few days of the treatment were considered, which enabled us to evaluate size of the subgroups of patients in which particular changes in terms of SI occurred. Thus, the studied population was divided into the following subgroups: patients with improvement in terms of SI (encompassing its elimination or reduction of its intensity) and patients with deterioration in terms of SI (encompassing its occurrence at the end of the therapy or increase of its intensity). At the same time we evaluated the size of subgroups in which intensity of SI was not changed. Lastly, we compared the frequencies of those observation between women and men in order to determine its association with patients' gender.

In statistical analysis accordingly to the types of variables Pearson's  $\chi^2$  test and Student's t-test for independent variables of natural distribution were used. Licensed software package STATISTICA PL was applied.

### Socio-demographic characteristics of the studied groups

Basic socio-demographic data were drawn from Life Inventory completed by patients at the stage of qualification for the treatment. The inventory included questions about patients' gender and age (Table 1), marital status (Table 2), education (Table 3) and source of income (Table 4). Mean age of women was 29.9 years, and of men 30.4 years. Approximately 2/3 of patients of both sexes have never been married. However, 30% of patients were married. Both among women and men nearly a half completed university education, while approximately 15% had uncompleted university education. Another 20% of patients of both sexes had high-school certificate. Approximately 1/3 of patients of both sexes had an office work. Approximately 13% of patients of both sexes were unemployed, while 29% of women and 22% of men were studying and were financially supported by their families.

Table 1. Age of the patients

The whole studied population		Subgroups of patients who initially reported SI	
Number of women	461	Number of women	134
Mean age $\pm$ standard deviation	29.9 $\pm$ 8.1 years	Mean age $\pm$ standard deviation	30.1 $\pm$ 8.7 years
Median	27.4 years	Median	27.3 years
Minimum–maximum	18.2–57.1 years	Minimum–maximum	18.3–57.1 years
Number of men	219	Number of men	80
Mean age $\pm$ standard deviation	30.4 $\pm$ 7.4 years	Mean age $\pm$ standard deviation	30.0 $\pm$ 7.4 years
Median	29.0 years	Median	28.2 years
Minimum–maximum	18.9–55.6 years	Minimum–maximum	20.2–54.4 years

Table 2. Marital status

	The whole studied population				Subgroups of patients who initially reported SI			
	Women (n = 461)		Men (n = 219)		Women (n = 134)		Men (n = 80)	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Never married	288	62.5%	140	63.9%	89	66.4%	49	61.3%
Married	145	31.5%	69	31.5%	33	24.6%	26	32.5%
Separated	5	1.1%	2	0.9%	3	2.2%	2	2.5%
Divorced	20	4.3%	7	3.2%	8	6.0%	3	3.8%
Widow or widower	3	0.7%	1	0.5%	1	0.7%	0	0.0%

Table 3. Education

	The whole studied population				Subgroups of patients who initially reported SI			
	Women (n = 461)		Men (n = 219)		Women (n = 134)		Men (n = 80)	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Primary education	2	0.4%	0	0.0%	0	0.0%	0	0.0%
Secondary education uncompleted	6	1.3%	6	2.7%	4	3.0%	2	2.5%
Secondary education	8	1.7%	3	1.4%	4	3.0%	0	0.0%
High school completed	16	3.50%	6	2.7%	6	4.5%	1	1.3%
High school completed with high school certificate	88	19.1%	44	20.1%	28	20.9%	19	23.8%
Bachelor's degree or post-high school education uncompleted	23	5.0%	8	3.7%	8	6.0%	4	5.0%
Bachelor's or college degree	41	8.9%	16	7.3%	4	3.0%	5	6.3%
University education uncompleted	72	15.6%	33	15.1%	20	14.9%	12	15.0%
University education completed	205	44.5%	103	47.0%	60	44.8%	37	46.3%

Table 4. Source of income

	The whole studied population				Subgroups of patients who initially reported SI			
	Women (n = 461)		Men (n = 219)		Women (n = 134)		Men (n = 80)	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Support by a family/student	135	29.3%	50	22.8%	39	29.1%	20	25.0%
Office work	157	34.1%	72	32.9%	48	35.8%	23	28.8%
Services sector employee/crafts	31	6.7%	17	7.8%	13	9.7%	7	8.8%

*table continued on the next page*

Blue-collar work	3	0.7%	3	1.4%	0	0.0%	0	0.0%
Farmer	3	0.7%	0	0.0%	1	0.7%	0	0.0%
Self-employed or one's own company	18	3.9%	22	10.0%	5	3.7%	10	12.5%
Unemployed	60	13.0%	28	12.8%	13	9.7%	14	17.5%
Social benefit	5	1.1%	2	0.9%	1	0.7%	2	2.5%
Retired	1	0.2%	1	0.5%	0	0.0%	0	0.0%
Others	48	10.4%	24	11.0%	14	10.4%	4	5.0%

### Diagnosis and the course of the treatment

Qualification for therapy in Neurotic and Behavioral Disorders Treatment Day Hospital of University Hospital in Kraków encompassed, apart from above-mentioned questionnaire, at least two psychiatric examinations, psychological examination and a set of other questionnaires. The procedure allowed us to exclude patients suffering from other psychiatric disorders (e.g. affective disorders, schizophrenic psychoses, exogenous disorders and pseudoneurotic disorders, as well as severe somatic illnesses) which render participation in the psychotherapy in the day hospital impossible [10]. The procedure of qualification composed of a set of ambulatory visits lasted on average for 2–3 weeks. After qualification patients started therapy on average within 4–12 weeks.

The studied group was composed of patients with diagnoses from the spectrum of F40–F61 including patients diagnosed with neurotic or behavioral disorders who had comorbid personality disorder (group F4 and F5) as a second diagnosis (Table 5).

Table 5. Patients' diagnosis according to ICD-10

Diagnoses	Women (n = 461)		Men (n = 219)	
	Number	Percentage	Number	Percentage
F40 Phobic disorders	51	11.1%	31	14.2%
F41 Other anxiety disorders	145	31.5%	73	33.3%
F42 Obsessive-compulsive disorders	15	3.3%	12	5.5%
F43 Acute stress disorder and adaption disorder	40	8.7%	18	8.2%
F44 Dissociative disorders	9	2.0%	1	0.5%
F45 Somatoform disorders	45	9.8%	20	9.1%
F48 Other neurotic disorders	3	0.7%	8	3.7%
F50 Eating disorders	27	5.9%	0	0.0%
F60 Specific personality disorders	143	31.0%	66	30.1%
F61 Mixed personality disorders	55	11.9%	28	12.8%
Others*	19	4.1%	13	5.9%

\* – other disorders comorbid with diagnoses from the spectrum of F40–F61

Preplanned duration of the course of the therapy was 12 weeks. During the treatment patients participated in intensive everyday open-group psychotherapy including usually 8–10 individuals and 10–15 sessions a week, which were combine with one session of individual therapy a week. The psychotherapy was conducted in integrative approach with predominance of psychodynamic approach [1]. Minority of patients was simultaneously using psychopharmacotherapy range of which was, accordingly to directives of the therapy, gradually reduced together with clinical improvement obtained by the patients. According to separate yet unpublished study by A. Murzyn on the group of 169 individuals treated in the same day hospital between 2008 and 2011 the percentage of patients who used antidepressant and anxiolytic drugs was 3%.

In case of the studied population the total time span between the beginning of the qualification and the discharge from the day hospital was estimated to be  $137.1 \pm 30.3$  days in women and  $132.4 \pm 30.5$  days in men (Table 6).

Table 6. Total time span between the beginning of the qualification and the discharge from the day hospital

Women (n = 461)		Men (n = 219)	
Mean time span $\pm$ standard deviation	137.1 $\pm$ 30.3 days	Mean time span $\pm$ standard deviation	132.4 $\pm$ 30.5 days
Median	135.0 days	Median	129.0 days
Minimum–maximum	56–199 days	Minimum–maximum	48–198 days

The data were used with the patients' permission, and then stored and processed anonymously.

## Results

By comparing test results of patients who initially reported SI and those who did not, it was demonstrated that there were significant differences in mean values of OWK coefficient, as well as in values of other scales of Symptom Checklist KO“O”, which is illustrated in table 7. The results indicate that in both women and men SI are comorbid with greater global severity of neurotic symptoms, as well as with greater severity of majority of neurotic symptom types measured with KO“O” (the only exemptions were non-organic sleep disorders in men) (Table 7).

Table 7. Initial differences in severity of neurotic symptoms measured with Symptom Checklist KO“O” between patients who reported SI during qualification and those who did not (n = 680)

	Women (n = 461)				Men (n = 219)			
	No SI (n = 327)	SI (n = 134)	Student's t-test		No SI (n = 139)	SI (n = 80)	Student's t-test	
	Mean value and std. dev.	Mean value and std. dev.	t	p	Mean value and std. dev.	Mean value and std. dev.	t	p
Global severity of neurotic symptoms (OWK coefficient)	312.6 $\pm$ 131.9	444.7 $\pm$ 134.6	-9.70	***	285.9 $\pm$ 130.5	429.7 $\pm$ 141.3	-7.62	***

table continued on the next page

Phobic disorders	6.5 ± 1.7	8.4 ± 1.3	-11.57	***	6.6 ± 1.8	9.0 ± 1.1	-10.47	***
Other anxiety disorders	3.9 ± 1.7	5.5 ± 1.5	-9.57	***	3.7 ± 2.0	5.2 ± 1.5	-5.99	***
Obsessive-compulsive disorders	4.5 ± 1.9	5.8 ± 1.9	-6.54	***	4.4 ± 1.8	5.5 ± 2.1	-4.36	***
Conversions and dissociations	5.8 ± 1.7	7.0 ± 1.7	-7.46	***	5.8 ± 1.8	7.5 ± 1.7	-6.70	***
Autonomic disorders (cardiovascular system)	4.8 ± 1.8	5.9 ± 1.7	-6.19	***	5.1 ± 1.8	6.4 ± 1.6	-5.20	***
Somatization disorders	5.6 ± 1.8	7.0 ± 1.7	-7.83	***	6.2 ± 1.9	7.7 ± 1.8	-5.80	***
Hypochondriacal disorders	4.0 ± 1.8	5.2 ± 1.4	-6.73	***	4.4 ± 1.8	5.3 ± 1.6	-3.64	***
Neurasthenia	2.7 ± 1.5	3.3 ± 1.7	-3.68	***	3.0 ± 1.6	3.9 ± 1.8	-3.92	***
Depersonalization and derealization	5.5 ± 1.9	6.7 ± 1.6	-6.77	***	5.1 ± 2.0	6.1 ± 1.8	-3.67	***
Avoidance and dependence	3.8 ± 1.3	4.7 ± 1.5	-6.18	***	4.3 ± 1.4	5.2 ± 1.4	-4.75	***
Impulsiveness and histrionism	5.3 ± 2.1	6.5 ± 1.7	-5.57	***	6.1 ± 2.1	7.5 ± 1.8	-5.04	***
Non-organic sleep disorders	4.5 ± 1.9	5.2 ± 1.7	-3.85	***	4.4 ± 1.9	4.9 ± 2.0	-1.91	ns
Sexual dysfunctions	3.5 ± 2.3	5.4 ± 2.0	-7.96	***	3.4 ± 2.4	5.2 ± 2.2	-5.67	***
Dysthymia	3.4 ± 1.3	4.3 ± 1.5	-6.32	***	3.9 ± 1.3	4.8 ± 1.4	-4.79	***

ns – a difference that is statistically insignificant:  $p > 0.05$ ; \*\*\* – a difference that is statistically significant at the level of  $p < 0.001$

Juxtaposition of the treated patients' initial and final results showed that the prevalence of SI decreased almost three times. In women initial prevalence of SI was 29.1% (95% CI: 25.1%–33.4%), while final prevalence was 10.2% (95% CI: 7.8%–13.3%). In men initial prevalence was 36.5% (95% CI: 30.4%–43.1%), while final prevalence was 13.7% (95% CI: 9.8%–18.9%). At the same time it was observed that differences between genders were insignificant both at the stage of qualification and at the stage of the last few days of the therapy (Table 9).

Another juxtaposition concerning changes in terms of SI in the whole studied population showed that the cases of improvement (defined as elimination of SI or reduction of its intensity) significantly outnumbered cases of deterioration (defined as occurrence of SI at the end of therapy or increase in its intensity). Among all the women improvement was observed in 24.5% (95% CI: 20.8%–28.6%), while deterioration was observed in 5.0% (95% CI: 3.4%–7.4%). Among all the men improvement was observed in 28.3% (95% CI: 22.8%–34.6%), while deterioration was observed in 2.7%

(95% CI: 1.3%–5.9%). In patients of both sexes percentages of cases of improvement in terms of SI were predominating over and were many times greater than percentages of cases of deterioration (Table 9).

**Table 8. Juxtaposition of the numbers of the observations from the two stages of the study i.e. from the stage of qualification and from the last few days before discharge (n = 680)**

		Results from the stage of qualification							
		Women (n = 461)				Men (n = 219)			
		No SI	SI (n = 134)			No SI	SI (n = 80)		
			Mild SI	Moderate SI	Severe SI		Mild SI	Moderate SI	Severe SI
Sum of observations		327	77	39	18	139	52	15	13
Results from the stage of discharge	No SI	<u>311</u>	63*	30*	10*	<u>136</u>	36*	10*	7*
	Mild SI	<b>11</b>	<u>7</u>	5*	2*	<b>2</b>	<u>13</u>	4*	2*
	Moderate SI	<b>4</b>	<b>5</b>	<u>4</u>	3*	<b>1</b>	<b>2</b>	<u>1</u>	3*
	Severe SI	<b>1</b>	<b>2</b>	<b>0</b>	<u>3</u>	<b>0</b>	<b>1</b>	<b>0</b>	<u>1</u>

\* – subgroups in which elimination of SI or reduction of its intensity was observed  
 Subgroups in which there was no change in terms of SI were underlined  
 Subgroups in which there was a deterioration in terms of SI were marked in bold

**Table 9. Prevalence and changes in terms of SI in all the patients (n = 680)**

	Women (n = 461)			Men (n = 219)			*Gender differences	
	Number	Percentage	95% CI	Number	Percentage	95% CI	Chi <sup>2</sup>	p
Prevalence of SI during qualification for the therapy	134	29.1%	25.1%–33.4%	80	36.5%	30.4%–43.1%	3.83	ns
Prevalence of SI at the end of therapy	47	10.2%	7.8%–13.3%	30	13.7%	9.8%–18.9%	1.82	ns
Improvement in terms of SI (its elimination or reduction in its intensity)	113	24.5%	20.8%–28.6%	62	28.3%	22.8%–34.6%	1.12	ns
Elimination of SI	103	22.3%	18.8%–26.4%	53	24.2%	19.0%–30.3%	0.29	ns
Reduction of SI intensity	10	2.2%	1.2%–4.0%	9	4.1%	2.2%–7.6%	2.06	ns
Deterioration in terms of SI (increase in the severity or the occurrence of SI)	23	5.0%	3.4%–7.4%	6	2.7%	1.3%–5.9%	1.84	ns
Occurrence of SI at the end of therapy in those who initially reported no SI	16	3.5%	2.2%–5.6%	3	1.4%	0.5%–4.0%	2.41	ns

*table continued on the next page*

Increase of intensity of SI that were initially reported	7	1.5%	0.7%–3.1%	3	1.4%	0.5%–4.0%	0.02	ns
Deterioration or no change in the SI intensity	37	8.0%	5.9%–10.9%	21	9.6%	6.4%–14.2%	0.47	ns
No change in the intensity of SI	14	3.0%	1.8%–5.0%	15	6.9%	4.2%–11.0%	5.29	0.022
No SI at the beginning and at the end of therapy	311	67.5%	63.1%–71.6%	136	62.1%	55.5%–68.5%	1.90	ns

\* – in order to determine if there is a relationship between patients' gender and the result concerning SI, Pearson's chi-square test was used; ns – gender differences were not statistically significant i.e.  $p \geq 0.05$

Further analysis revealed a number of significant results concerning the subgroup of patients who reported SI during the qualification. The majority of those patients of both sexes gained improvement in terms of SI (defined as elimination of SI or reduction of its intensity). Among the women improvement was observed in 84.3% (95% CI: 77.2%–89.5%), while increase of SI intensity was noted only in 5.2% (95% CI: 2.6%–10.4%). Among the men who initially reported SI 77.5% gained improvement (95% CI: 67.2%–85.2%), while increase of SI intensity was observed only in 3.8% (95% CI: 1.4%–10.4%). Moreover, in the majority of the patients the above-mentioned improvement had a form of SI elimination. Among those initially reporting SI its elimination was observed in 76.9% of the women (95% CI: 69.0%–83.2%) and in 66.2% of men (95% CI: 55.4%–75.5%). The differences between genders in terms of the studied changes in SI prevalence and intensity were statistically insignificant (Table 10).

Table 10. Changes in terms of SI in patients who reported it initially (n = 214)

	Women (n = 134)			Men (n = 80)			*Gender differences	
	Number	Percentage	95% CI	Number	Percentage	95% CI	Chi <sup>2</sup>	p
*Improvement in terms of SI (its elimination or reduction of its intensity)	113	84.3%	77.2%–89.5%	62	77.5%	67.2%–85.2%	1.57	ns
*Elimination of SI	103	76.9%	69.0%–83.2%	53	66.2%	55.4%–75.5%	2.86	ns
*Reduction of SI intensity	10	7.5%	4.1%–13.2%	9	11.3%	6.0%–20.8%	0.89	ns
*No changes in SI intensity	14	10.4%	6.4%–16.8%	15	18.8%	11.7%–28.7%	2.95	ns
*Increase of intensity of SI that were reported initially	7	5.2%	2.6%–10.4%	3	3.8%	1.4%–10.4%	0.24	ns

\* – in order to determine if there is a relationship between patients' gender and the result concerning SI, Pearson's chi-square test was used; ns – gender differences were not statistically significant i.e.  $p \geq 0.05$

## Discussion

Presented results have provided a number of significant data on changes in the prevalence and intensity of SI in the course of integrative complex psychotherapy conducted in the day hospital. The findings show high effectiveness of this form of therapy in terms of SI elimination and reduction of its intensity. Such improvement among those who initially reported SI was observed in the majority of patients (84.3% of women – 95% CI: 77.2%–89.5% and 77.5% of men – 95% CI: 67.2%–85.2%; Table 10). The improvement was to large extent synonymous with elimination of SI (among those who initially reported SI its elimination was observed in 76.9% of women – 95% CI: 69.0%–83.2% and 66.2% of men – 95% CI: 55.4%–75.5%; Table 9). Analysis of dynamics of SI prevalence and intensity in patients of both sexes who initially reported it indicated strong and significant predominance of beneficial changes (percentages of patients with improvement) over detrimental changes (percentages of patients with increase of SI intensity) (in women 84.3% vs. 5.2%, and in men 77.5% vs. 3.8%; Table 10). Similar tendencies were observed in reference to the whole studied population. It was found that the percentages of patients with improvement in terms of SI was significantly greater than percentages of patients with deterioration in terms of SI (i.e. with increase of its intensity or with its emergence at the end of the therapy) (in women 24.5% vs. 5%, and in men 28.3% vs. 2.7%; Table 9). Effectively, the overall prevalence of SI decreased in the studied group almost threefold (in women from initial 29.1% to 10.2% at the end of the therapy, and in men from 36.5% to 13.7%; Table 9).

In the view of the above presented results we may conclude that referring patients with neurotic, behavioral and personality disorders who report SI to the psychotherapeutic day hospital may be highly beneficial. Participating in this type of therapy by the patients was associated with high chances for eliminating SI or reducing its intensity. This demonstrates the high efficiency of complex integrative psychotherapy with a predominance of psychodynamic approach, applied in day hospital for the treatment of SI.

In medical literature available to the authors no studies were found concerning the same subject. Similar results but referring to patients with the diagnosis of adaptation disorder were produced by Hsiao et al. By studying 37 patients who underwent group psychotherapy they noticed that the treatment resulted in decrease of prevalence of SI [15].

Conclusions on effectiveness of the therapy presented in this paper appear especially important considering observed clinical characteristics of patients reporting SI. The results show that the studied patients with SI, in comparison to others, experience greater global intensity of neurotic symptoms and greater intensity of almost all of the types of neurotic symptoms measured with Symptom Checklist KO“O” (Table 7). Strong evidences for the effectiveness of the psychotherapy in treatment of those typical neurotic symptoms [2–7, 16–17] suggest that for patients reporting SI the studied form of the therapy may be beneficial in many aspects. Studies, as well as clinical practice, show that psychotherapy in day hospital for the treatment of neurotic disorders may result in improvement both in terms of SI, as well as in terms of typical neurotic symptoms.

The results presented in this study gain special significance in a view of studies by Iliceto et al., Heisel et al. and yet unpublished studies of Sobański et al., as well as suggestions of Berozo et al. that neuroticism (however defined differently by dif-

ferent authors) may be associated with SI [17–19]. Also, taking into account results presented in this study together with studies providing evidence for the effectiveness of the psychotherapy conducted in a day hospital in terms of dysfunctional personality traits [2–7, 20] leads to further conclusions including some of practical nature. The patients with SI as a group with higher level of numerous neurotic personality traits requires effective treatment in both those aspects. Accordingly to those needs, treatment of patients with neurotic, behavioral and personality disorders in the psychotherapeutic day hospital may simultaneously bring many beneficial results i.e. both beneficial changes concerning personality traits and, despite commonly expressed concerns of practitioners, improvement in terms of SI. Clinical experience also further supports this conclusion and frequently shows that reduction of level of dysfunctional personality traits accompanies elimination of SI.

Moreover, the presented findings also suggest that SI reported by the patients should not be treated as strict indication for the pharmacological therapy or the full-time hospitalization. As the studies show, psychotherapy in the day hospital may be the treatment of choice for many of such patients. Most probably key elements of the management, which determine safety of such patients in course of the treatment, especially in problematic cases, are diligent diagnosis and qualification, and frequent re-evaluation of changes of mental status [21]. Evaluation needs to include severity of SI, suicidal plans and behaviors, associated affect, transference-related aspects, and an extent to which depressiveness and hopelessness affect patients' cognition, mood and behaviors, as well as an extent to which those are determined by urge to gain control and dominance over social environment [22, 23].

Limitations of this study included lack of possibility of evaluating permanence of the improvement in terms of SI after discharge. Apart from that, the KO“O” Symptoms Checklist question about “willingness to take one's own life” – that was the main tool of this study –referred to a period of the last seven days. This might led to not registering the patients who were not experiencing SI only temporarily. On the other hand, such formulation of the question allowed us to exclude the patients who had SI in the more distant past. Finally, as in case of most of the questionnaire-based studies, it is impossible to verify if the answers to the questions were true.

It is also worth stressing that plan of the psychodynamic therapy did not include content of each applied psychotherapeutic intervention. Thus, the studied group was composed of patients to whom psychotherapeutic interventions were formulated in course of treatment in the individualized manner. In consequence, we need to assume that in case of each patient the observed changes resulted from up to some extent different therapeutic factors from the spectrum of psychotherapeutic interventions.

## Conclusions

Intensive psychotherapy conducted in the integrative approach with the predominance of the psychodynamic approach in the day hospital was a highly effective method of treatment in terms of SI elimination and reduction of its intensity in reference to patients with neurotic, behavioral and personality disorders;

Initial prevalence of SI reaching 1/3 of patients of both genders after a course of the therapy decreased nearly threefold;

The observed number of beneficial changes in terms of occurrence of SI and its intensity outnumbered from 5 to 20 times the number of cases of deterioration depending on the juxtaposition;

The patients initially reporting SI in comparison to others were characterized by greater global severity of neurotic symptoms (OWK) and greater intensity of the following symptom groups: phobic disorders, other anxiety disorders, obsessive-compulsive disorders, conversions and dissociations, autonomic disorders (cardiovascular system), somatization disorders, hypochondriacal disorders, neurasthenia, depersonalization and derealization, avoidance and dependence, impulsiveness and histrionism, sexual dysfunctions and dysthymia; as well as, exclusively in women: non-organic sleep disorders;

Due to high prevalence of SI and their still undetermined complexity as well as evident associations with other symptoms including those from the spectrum of auto-aggressive behaviors, it is essential to continue studies on etiopathogenesis of SI and on effective and comprehensive methods of treatment such as psychotherapy;

The presented results also indicate that it is unadvisable to treat all the cases of patients with SI belonging to the studied group as cases strictly requiring psychopharmaceutical treatment or full-time hospitalization.

## References

1. Aleksandrowicz J. *Psychoterapia*. Warsaw: PZWL Medical Publishing; 2000.
2. Aleksandrowicz JW, Sobański JA. *Skuteczność psychoterapii poznawczej i psychodynamicznej*. Krakow; Library of Polish Psychiatry; 2004.
3. Białas A. *Wiek pacjentów a skuteczność psychoterapii i możliwość zmiany cech osobowości*. *Psychoterapia* 2008; 144(1): 27–42.
4. Styła R. *Differences in effectiveness of intensive treatment programmes for neurotic and personality disorders. Is it worth monitoring effectiveness of a therapeutic team?* *Psychiatr. Pol.* 2014; 48(1): 157–171.
5. Jarema M. *Standardy leczenia farmakologicznego niektórych zaburzeń psychicznych*. Gdansk; Via Medica Medical Publishers; 2011.
6. Wciórka J, Pużyński S, Rybakowski J. ed. *Psychiatria*. Wrocław: Elsevier Urban & Partner Publishing House; 2012.
7. Pilecki M. *Psychoterapia psychodynamiczna w okresie rozwojowym – wskazania i dylematy*. *Psychiatr. Psychol. Klin.* 2009; 9(1): 61.
8. Thibodeau MA, Welch PG, Sareen J, Asmundson GJ. *Anxiety disorders are independently associated with suicide ideation and attempts: propensity score matching in two epidemiological samples*. *Depress. Anxiety* 2013; 30(10): 947–954.
9. Sareen J, Cox BJ, Afifi TO, de Graaf R, Asmundson GJ, ten Have M. et al. *Anxiety disorders and risk for suicidal ideation and suicide attempts: a population-based longitudinal study of adults*. *Arch. Gen. Psychiatry* 2005; 62(11): 1249–1257.

10. Sobański JA, Klasa K, Rutkowski K, Dembińska E, Müldner-Nieckowski Ł. *Kwalifikacja do intensywnej psychoterapii w dziennym oddziale leczenia nerwic*. Psychiatr. Psychoter. 2011; 7(4): 20–34
11. Sawicka J, Szulc A, Bachórzewska-Gajewska H. *Samobójstwa wśród chorych z zaburzeniami psychicznymi – opisy przypadków*. Psychiatr. Pol. 2013; 47(1): 135–146.
12. Gierowski JK. *Niektóre prawne aspekty samobójstw*. Przegl. Lek. 1982; 39(11): 761–764.
13. Aleksandrowicz JW, Hamuda G. *Kwestionariusze objawowe w diagnozie i badaniach epidemiologicznych zaburzeń nerwicowych*. Psychiatr. Pol. 1994; 28(6): 667–676.
14. Rewer A. *Skale kwestionariusza objawowego „O”*. Psychiatr. Pol. 2000; 34(6): 931–943.
15. Hsiao FH, Lai YM, Chen YT, Yang TT, Liao SC, Ho RT. et al. *Efficacy of psychotherapy on diurnal cortisol patterns and suicidal ideation in adjustment disorder with depressed mood*. Gen. Hosp. Psychiatry 2014; 36(2): 214–219.
16. Kamiński R. *Effect of group psychotherapy on changes in symptoms and personality traits in patients with anxiety syndromes*. Ann. Acad. Med. Stetin. 2001; 47: 177–188.
17. Olatunji BO, Cisler JM, Tolin DF. *A meta-analysis of the influence of comorbidity on treatment outcome in the anxiety disorders*. Clin. Psychol. Rev. 2010; 30(6): 642–654.
18. Iliceto P, Fino E, Sabatello U, Candilera G. *Personality and suicidal ideation in the elderly: factorial invariance and latent means structures across age*. Aging Ment. Health 2014; 18(6): 792–800.
19. Heisel MJ, Duberstein PR, Conner KR, Franus N, Beckman A. *Personality and reports of suicide ideation among depressed adults 50 years of age or older*. J. Affect. Disord. 2006; 90(2–3): 175–180.
20. Brezo J, Paris J, Turecki G. *Personality traits as correlates of suicidal ideation, suicide attempts, and suicide completions: a systematic review*. Acta Psychiatr. Scand. 2006; 113(3): 180–206.
21. Gabbard GO. *Psychodynamic psychiatry in clinical practice*. Fourth Edition. Washington DC: American Psychiatric Publishing; 2005.
22. Hendin H, Haas AP, Maltsberger JT, Koestner B, Szanto K. *Problems in psychotherapy with suicidal patients*. Am. J. Psychiatry 2006; 163(1): 67–72.
23. Kernberg OF, Selzer MA, Koeningsberg HW, Carr AC, Appelbaum AH. *Psychodynamiczna terapia pacjentów borderline*. Gdansk: Gdansk Psychology Publisher; 2007.

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