Psychiatr. Pol. 2015; 49(4): 847–864¶
PL ISSN 0033-2674 (PRINT), ISSN 2391-5854 (ONLINE)
www.psychiatriapolska.pl
DOI: http://dx.doi.org/10.12740/PP/Online First/32223

Reduction of suicidal ideation in patients undergoing psychotherapy in the day hospital for the treatment of neurotic and behavioral disorders and neurotic symptoms reported by them before the hospitalization

Paweł Rodziński[1], Krzysztof Rutkowski[1], Jerzy A. Sobański[1], Agnieszka Murzyn[2], Katarzyna Cyranka[1], Karolina Grządziel[3], Bogna Smiatek-Mazgaj[1], Katarzyna Klasa[4], Łukasz Müldner-Nieckowski[1], Edyta Dembińska[1], Michał Mielimąka[1]

[1] Department of Psychotherapy, Jagiellonian University Medical College, Acting Head: dr hab. n. med. K. Rutkowski, Prof. of Jagiellonian University

[2] Department of Child and Adolescent Psychiatry, Jagiellonian University Medical College Head: dr n. med. M. Pilecki

[3] Department of History of Medicine, Jagiellonian University Medical College, Head: prof. dr hab. n. med. Andrzej Śródka

[4] Department of Psychotherapy, University Hospital in Krakow Head: dr hab. n. med. K. Rutkowski, Prof. of Jagiellonian University

Summary

Aim. Analysis of associations between symptoms reported before the beginning of the hospitalization and reduction of suicidal ideation – or its lack – obtained until the end of the hospitalization in patients of the day hospital for the treatment of neurotic and behavioral disorders.

Material and method. Symptoms Checklist KO"O" and Life Inventory completed by 461 women and 219 men treated with intensive integrative psychotherapy with predominance of psychodynamic approach in the day hospital due to neurotic, behavioral and personality disorders between 2005-2013. Percentages of patients reporting SI initially and at the end of the treatment were 29.1% and 10.2% respectively in women and 36.5% and 13.7% in men. The improvement in terms of initially reported SI was obtained by 84.3% of women and 77.5% of men. Among patients, those initially reporting SI were characterized by greater intensity of neurotic symptoms ($p<0.001$) and greater intensity of nearly all of 14 subtypes of neurotic symptoms($p<0.05$).

Results. Among those reporting SI, subgroups of women with greater intensity of Obsessive-compulsive symptoms ($p=0.003$), Neurasthenia ($p=0.005$), Autonomic disorders

(p=0.044) and women reporting episodes of uncontrollable hunger (p<0.01) had significantly lower chances of improvement in terms of SI than others.

Conclusions. Patients initially reporting SI constituted approximately 1/3 in both genders and were characterized by greater intensity of neurotic disorders. Among those, women with particularly higher intensity of Obsessive-compulsive symptoms, Neurasthenia and Autonomic disorders and women reporting episodes of uncontrollable hunger seemed to suffer from SI that were more resistant to the psychotherapy. As such, those subgroups of women require special attention and diligent selection of the therapeutic methods. **Key words:** suicidal ideations, neurotic symptoms, psychotherapy.

Key words: suicidal ideations, neurotic symptoms, psychotherapy

Introduction

Suicidal ideation (SI) is one of the most problematic symptoms encountered in patients with neurotic, behavioral and personality disorders. Its presence is associated with a risk of self-harm [1, 2] and other acts of auto-aggression [3], with provoking situations that pose risk for the patients' life and health [4], as well as with a risk of attempting suicide [5, 6]. The risk of the listed complications is affecting safety at every stage of the patients' treatment. This is particularly relevant in case of psychotherapeutic day hospitals, where after the therapy hours there is no possibility of monitoring the patients or providing them with medical attention. At the same time, high intensiveness of the psychotherapy applied in this type of hospitals quite frequently causes additional but transient burden to the patients. This may stem from patients' limited tolerance to emotional tension that emerges during the psychotherapy aimed at insight [7–11].

Among many symptoms reported in psychotherapeutic day hospitals, SI is one of the highest prevalence. SI is observed in approximately 1/3 of patients [12]. According to numerous studies it is most common to observe SI and others manifestations of auto-aggression in patients with severe personality disorders [13] and in patients with eating disorders, especially with bulimia nervosa [14–16].

Moreover, as researchers report, psychotherapeutic day hospital patients with SI constitute group that is in many respects in more serious clinical condition than others. They are characterized by greater intensity of neurotic symptoms, as well as higher level of personality disorders [12].

Above-mentioned results of the studies point to considerable importance of the effectiveness in the treatment of SI. Thus, both at the stage of qualification and during the therapy itself it is essential to appropriately evaluate the significance of the reported SI. It is necessary to take into account the specificity of each case of SI, accompanying plans and fantasies [8], their meaning in the context of patients' personality and overall psychopathologic picture [6, 8–10]. Only this careful analysis allows the therapeutic team to plan an adequate interventions. Therapists in this circumstances are confronted with a number of dilemmas concerning selection of appropriate methods of treatment and formulation of therapeutic interventions [8, 17], while continuously taking into consideration patients' safety.

Despite this clearly implied crucial significance of the effectiveness in eliminating SI in the patients of psychotherapeutic day hospitals, in medical literature available to the authors no studies concerning factors affecting the effectiveness were found.

Aim

Analysis of associations between symptoms reported before the hospitalization and reduction of suicidal ideation (eliminating SI or decreasing its intensity) – or lack of such reduction – obtained until the end of the hospitalization in patients treated with complex psychotherapy (including 10–15 group sessions combined with one individual session) conducted in integrative approach with predominance of psychodynamic approach in the day hospital for the treatment of neurotic and behavioral disorders.

Material and method

As a source of information concerning SI (defined as willingness to take one's own life) Symptoms Checklist KO"O" [18, 19] was used. This tool allows for measurement of the intensity of symptoms which are observed in course of neurotic disorders. The questionnaires were completed by patients at the stage of qualification for the treatment [20] and for the second time within the last few days of the hospitalization. Evaluation of SI prevalence and intensity was based on patients' answers to the question about "arduousness of willingness to take one's own life within the last seven days"(question no. 62. in KO"O"). The questionnaire included four optional answers: (0) the negative one and the positive answers that required to note the level of arduousness of SI: (a) mild, (b) moderate or (c) severe.

Socio-demographic characteristics of the studied population

The studied group (N=680) was composed of 461 women and 219 men who were treated in psychotherapeutic day-hospital between 2005 and 2013 due to neurotic, behavioral or personality disorders.

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.

Table 1. **Age of the patients [12]**

Gender	Women	Men
Number of patients	461	219
Mean age ± std. dev.	29.9 ± 8.1 years	30.4 ± 7.4 years

table continued on the next page

Median	27.4 years	29.0 years
Minimum – maximum	18.2–57.1 years	18.9–55.6 years

Table 2. **Marital status [12]**

	Women		Men	
	Number	Percentage	Number	Percentage
Never married	288	62.5%	140	63.9%
Married	145	31.5%	69	31.5%
Separated	5	1.1%	2	0.9%
Divorced	20	4.3%	7	3.2%
Widow/widower	3	0.7%	1	0.5%

Table 3. **Education [12]**

	Women		Men	
	Number	Percentage	Number	Percentage
Primary education	2	0.4%	0	0.0%
Secondary education uncompleted	6	1.3%	6	2.7%
Secondary education completed	112	24.3%	53	24.2%
Bachelor's degree or post-high school education uncompleted	23	5.0%	8	3.7%
Bachelor's or college degree	41	8.9%	16	7.3%
University education uncompleted	72	15.6%	33	15.1%
University education completed	205	44.5%	103	47.0%

Table 4. **Source of income [12]**

	Women		Men	
	Number	Percentage	Number	Percentage
Supported by a family/student	135	29.3%	50	22.8%
Office work	157	34.1%	72	32.9%
Services sector employee/crafts	31	6.7%	17	7.8%
Blue-collar work	3	0.7%	3	1.4%
Farmer	3	0.7%	0	0.0%
Self-employed or one's own company	18	3.9%	22	10.0%
Unemployed	60	13.0%	28	12.8%
Social benefit	5	1.1%	2	0.9%

table continued on the next page

Retired	1	0.2%	1	0.5%
Others	48	10.4%	24	11.0%

Diagnosis and the course of the treatment

Qualification for therapy in the Day Hospital for Neurotic and Behavioral Disorders Treatment of University Hospital in Krakow encompassed, apart from a set of questionnaires (including those mentioned above), at least two psychiatric examinations and psychological examination. The procedure allowed for excluding patients in a high risk of suicide [20, 21], as well as those suffering from other psychiatric disorders (e.g. affective disorders, psychotic disorders, exogenous disorders and pseudoneurotic disorders, as well as severe somatic illnesses) which render participation in the psychotherapy in the day hospital impossible [12, 20]. The qualification consisted of a set of ambulatory visits lasting on average 2–3 weeks. After qualification patients started therapy on average within 4–12 weeks.

Only patients undergoing the treatment for the first time were included in the study. The studied group was composed of patients with diagnoses from the spectrum of F40–F69, including patients diagnosed with personality disorders comorbid with diagnoses from the groups of F4 or F5 (Table 5).

Table 5. **Patients' diagnosis according to ICD-10 [12]**

	Women (n = 461)		Men (n = 219)	
	Number	Percentage	Number	Percentage
F40 Fobic 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/F61 Specific personality disorders or Mixed personality disorders [a]	198	43.0%	94	42.9%
Others [b]	19	4.1%	13	5.9%

[a] – secondary diagnoses of personality disorders frequently accompanied diagnoses from the spectrum of F4–F5,

[b] – other disorders comorbid with diagnoses from the spectrum of F40–F69.

Preplanned duration of the course of the therapy was 12 weeks. During the treatment patients participated in a intensive everyday open-group psychotherapy including usually 8–10 patients and 10–15 group sessions per week, which were combined with one session of individual therapy a week. The psychotherapy was conducted in integrative approach with predominance of psychodynamic approach with elements of cognitive and behavioral therapy [10, 20, 22–24].

Minority of patients was simultaneously using psychopharmacotherapy which was gradually reduced together with clinical improvement obtained by the patients or even earlier – in order to gain access to patients' experiences and circumstances associated with symptoms. According to separate, yet unpublished, study by A. Murzyn conducted on the group of 169 individuals treated in the same day hospital between 2008 and 2011, the percentage of patients who used antidepressive and anxiolytic drugs was 3.0%.

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 ± 30.3 days in the group of women and 132.4 ± 30.5 days in the group of men.

Intensity of neurotic symptoms depending on initial presence or absence of SI

A comparison of Symptoms Checklist KO"O" scales between patients who reported SI during the qualifications and those who did not, was performed by applying Student's t-test for independent variables. It was found that patients reporting SI in comparison to others suffered from much greater global intensity of neurotic symptoms ($p < 0.001$) as well as from much greater intensity of almost all of the 14 symptoms groups included in KO"O" ($p < 0.001$) – with a sole exception of non-organic sleep disorders with men, in case of which the differences of values were statistically non-significant [12].

Changes observed in the patients in terms of SI

Among women the prevalence of SI was 29.1% at the stage of qualification for the treatment, while at the end it was 10.2%. Among men the prevalence of SI was initially 36.5%, and at the end it was 13.7% (Table 6).

Table 6. **Prevalence and changes in terms of SI observed in all studied patients, separately in women and in men (n = 680) [12]**

	Women (n = 461)			Men (n = 219)			* Gender differences	
	Number	Percentage	95% CI	Number	Percentage	95% CI	Chi^2	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

table continued on the next page

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
Deterioration in terms of SI (increase in the severity or its appearance)	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
Increase of intensity of SI that was 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

Pearson's chi-squared test was used; ns – gender differences were not statistically significant ($p \geq 0.05$)

Another juxtaposition concerned only patients who reported SI at the stage of qualification. Here as well, clear and significant ($p < 0.05$) predominance of beneficial changes in terms of SI over detrimental changes in patients of both sexes was observed. Majority of the patients gained improvement in terms of SI (defined as its elimination or reduction of its intensity). In the subgroup of women improvement was observed in 84.3%. At the same time increase in SI intensity was observed only in 5.2% of women. Among men who initially reported SI, the improvement was observed in 77.5%. On the other hand, percentage of men in whom increase of SI intensity was observed was 3.8%. Moreover, in majority of the patients with improvement it was synonymous with elimination of SI. In the subgroups in which SI was initially reported, its elimination was observed in 76.9% of women and in 66.2% of men (Table 7).

Table 7. **Changes in terms of SI in patients who reported it during the qualification (n = 214) [12].**

	Women (n = 134)			Men (n = 80)			* Gender differences	
	Number	Percentage	95% CI	Number	Percentage	95% CI	Chi^2	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

table continued on the next page

Increase of SI intensity	7	5.2%	2.6%–10.4%	3	3.8%	1.4%–10.4%	0.24	ns
No improvement in terms of SI (no changes or increase in SI intensity)	21	15.7%	10.5%–22.8%	18	22.5%	14.8%–32.8%	1.57	ns

Pearson's chi-squared test was used; ns –differences were not statistically significant ($p \geq 0.05$)

Determining associations between initially reported neurotic symptoms and improvement in term of SI

For this purpose information gathered during the qualification for the treatment with Symptom Checklist KO"O" (allowing to determine presence and intensity of 135 typical neurotic symptoms, intensity of the 14 symptoms groups and global intensity of symptoms – OWK coefficient) [18, 19] was further analyzed. A comparison was made, separately for women and men, between patients who improved in terms of SI and those who did not.

The information obtained in course of above-mentioned diagnostics were used with patients' permission, and then stored and processed anonymously. In statistical analysis accordingly to the types of variables Pearson's chi-squared test and Student's t-test for independent variables of normal distribution were used. Attempts of using logistic regression were made, but to construct a useful model proved to be impossible due to the effect of the alignment of the many variables. For calculations licensed software package STATISTICA PL was used.

Results

The comparison of mean values of Symptoms Checklist KO"O" showed a number of significant differences between patients who improved in terms of SI and those who did not. It was found that the lack of improvement in terms of SI in women was associated with greater values of the following scales: Obsessive-compulsive disorders ($p = 0.003$), Neurasthenia ($p = 0.005$), Autonomic disorders ($p = 0.044$) (Table 8).

In men who gained improvement in terms of SI and those who did not, the differences of the values where statistically insignificant, which might have been due to lesser number of the studied men than women (Table 8).

Table 8. **Comparison of mean values of Symptom Checklist KO"O" scales (completed at the stage of qualification) between patients who later on improved in terms of SI (elimination of SI or reduction of its intensity) and those who did not**

Symptom Checklist KO"O" scales	Women (n = 134)				Men (n = 80)			
	Changes in terms of SI		Student's t-test		Changes in terms of SI		Student's t-test	
	No improvement (n = 21)	Improvement (n = 113)	t	p	No improvement (n = 18)	Improvement (n = 62)	t	p

table continued on the next page

Global severity of neurotic symptoms (OWK coefficient)	496.0 ± 138.0	435.1 ± 132.4	1.92	ns	413.6 ± 140.2	434.3 ± 142.5	-0.55	ns
1. Phobic disorders	8.1 ± 1.4	8.4 ± 1.3	-1.26	ns	8.9 ± 0.7	9.0 ± 1.2	-0.03	ns
2. Other anxiety disorders	6.0 ± 1.7	5.4 ± 1.4	1.78	ns	5.3 ± 1.4	5.2 ± 1.6	0.41	ns
3. Obsessive-compulsive disorders	7.0 ± 1.5	5.6 ± 1.9	2.98	**	5.0 ± 2.1	5.7 ± 2.1	-1.25	ns
4. Conversions	7.3 ± 1.7	7.0 ± 1.7	0.87	ns	7.3 ± 1.9	7.5 ± 1.7	-0.48	ns
5. Autonomic disorders (cardiovascular system)	6.6 ± 1.8	5.8 ± 1.7	2.03	*	6.2 ± 1.6	6.4 ± 1.7	-0.54	ns
6. Somatization disorders	7.6 ± 1.8	6.9 ± 1.6	1.62	ns	7.7 ± 1.5	7.8 ± 1.9	-0.19	ns
7. Hypochondriac disorders	5.7 ± 1.4	5.1 ± 1.4	1.90	ns	5.1 ± 1.9	5.3 ± 1.5	-0.41	ns
8. Neurasthenia	4.2 ± 2.1	3.1 ± 1.6	2.83	**	3.4 ± 1.7	4.1 ± 1.9	-1.44	ns
9. Depersonalization and derealization	7.2 ± 1.3	6.6 ± 1.6	1.59	ns	6.1 ± 1.8	6.1 ± 1.8	-0.09	ns
10. Avoidance and dependence	5.0 ± 1.6	4.7 ± 1.5	0.85	ns	4.8 ± 1.3	5.3 ± 1.4	-1.17	ns
11. Impulsiveness and histrionism	6.6 ± 1.8	6.4 ± 1.7	0.34	ns	7.8 ± 1.6	7.4 ± 1.9	0.70	ns
12. Non-organic sleep disorders	5.1 ± 1.5	5.3 ± 1.7	-0.49	ns	5.2 ± 1.6	4.8 ± 2.1	0.70	ns
13. Sexual dysfunctions	5.9 ± 2.5	5.3 ± 1.9	1.25	ns	4.8 ± 2.0	5.4 ± 2.3	-0.88	ns
14. Dysthymia	4.5 ± 1.6	4.3 ± 1.5	0.53	ns	4.8 ± 1.5	4.8 ± 1.4	-0.03	ns

* – a difference that is statistically significant at the level of $p < 0.05$; ** – a difference that is statistically significant at the level of $p < 0.01$; ns – a difference that is statistically insignificant ($p \geq 0.05$)

At the next stage of analysis, a number of significant associations were found between particular symptoms' declarations and chances of SI reduction. It was determined that in women a few of the declared symptoms were significantly related with increased chances of improvement in terms of SI: a sense of thinking-tempo decreasing and tempered mind acuity (OR = 7.13, 95% CI: 2.04–25.00, $p < 0.01$) and a sense of memory deterioration (OR = 2.86; 95% CI: 1.05–7.81) (Table 9). In men increased chances for improvement in terms of SI were associated with the following symptom declarations: an unwillingness to have heterosexual interactions (OR = 7.50; 95% CI: 1.59–35.41, $p < 0.01$), frequent awakenings at night (OR = 4.20; 95% CI: 1.38–12.81), a sense of unknown danger (OR = 3.38; 95% CI: 0.99–11.54), a sense of the others being hostile (OR = 3.02; 95% CI: 0.99-9.18) (Table 9).

Table 9. **Neurotic symptoms (included in Symptom Checklist KO"O") that were significantly associated with higher chances of SI reduction in patients who had them than in those who did not– separately for women and men**

Question	Chances of improvement in terms of SI									
	Women (n = 134)					Women (n = 134)				
	Pearson's Chi-squared test	OR	95% CI		p	Pearson's Chi-squared test	OR	95% CI		p
Sense of thinking-tempo decreasing and tempered mind acuity	11.80	7.13	2.04	25.00	**	1.15	2.28	0.49	10.64	ns
Sense of memory deterioration	4.46	2.86	1.05	7.81	*	0.01	0.93	0.23	3.76	ns
Unwillingness to have heterosexual interactions	4.90	0.33	0.12	0.91	*	8.08	7.50	1.59	35.41	**
Frequent awakenings at night	1.81	0.42	0.12	1.53	ns	6.88	4.20	1.38	12.81	*
Sense of unknown danger	0.22	0.73	0.20	2.71	ns	4.03	3.38	0.99	11.54	*
Sense of the others being hostile	0.12	0.83	0.28	2.45	ns	3.97	3.02	0.99	9.18	*

Coefficients of significance of relationship calculated for the Pearson's chi-squared test indicated * – $p < 0.05$; ** – $p < 0.01$; ns – a difference at the statistically insignificant level.

Furthermore, it was found that the presence of some symptom declarations was decreasing the patients' chances for improvement in terms of SI – in this area the differences between genders were clear as well. In women likelihood of improvement in terms of SI was significantly and adversely affected by the following symptoms: vertigo (OR = 0.19; 95% CI: 0.04–0.87), anxiety and other distressing feelings while being alone (OR = 0.17; 95% CI: 0.04–0.77), absorbing activities aimed at avoiding a sickness (OR = 0.19; 95% CI: 0.06–0.61), episodes of uncontrollable hunger e.g. at night (OR = 0.19; 95% CI: 0.07–0.56; $p < 0.01$), embarrassment and self-consciousness in the presence of the people of the other sex (OR = 0.32; 95% CI: 0.11–0.93), unwillingness to have heterosexual interactions (OR = 0.33; 95% CI: 0.12–0.91), anxiety while being in the confined spaces (OR = 0.27; 95% CI: 0.10–0.70), constipations (OR = 0.37; 95% CI: 0.14–0.99), trembling of extremities or of all the body (OR = 0.32; 95% CI: 0.10–1.01), fits of uncontrollable anger (OR = 0.24; 95% CI: 0.05–1.06), hypersomnia (OR = 0.24; 95% CI: 0.05–1.06), apprehension about the close ones who actually are safe (OR = 0.23; 95% CI: 0.05–1.02), and constrictions compelling to constant turning one's head on one side (OR = 0.27; 95% CI: 0.09–0.84) (Table 10).

In men, the probability of improvement in terms of SI was decreased in cases of only two symptom declarations: pains in the heart area (OR = 0.32; 95% CI: 0.10–1.00) and collapses occurring in difficult or distressing situations (OR = 0.30; 95% CI: 0.09–0.97) (Table 10).

Table 10. **Neurotic symptoms (included in Symptom Checklist KO"O") that were significantly associated with lower chances of SI reduction in patients who had them than in those who did not – separately for women and men**

Question	Chances of improvement in terms of SI (n = 214)									
	Women (n = 134)					Men (n = 80)				
	Pearson's Chi-squared test	OR	95% CI		p	Pearson's Chi-squared test	OR	95% CI		p
Absorbing activities aimed at avoiding a sickness	9.09	0.19	0.06	0.61	**	0.01	0.94	0.32	2.76	ns
Episodes of uncontrollable hunger e.g. at night	10.50	0.19	0.07	0.56	**	0.01	0.96	0.34	2.77	ns
Vertigo	5.51	0.19	0.04	0.87	*	2.58	0.41	0.14	1.24	ns
Anxiety (and other distressing feelings) while being alone	6.46	0.17	0.04	0.77	*	0.72	0.61	0.19	1.93	ns
Hypersomnia	4.08	0.24	0.05	1.06	*	0.27	1.34	0.45	3.96	ns
Apprehension about the close ones who actually are safe	4.35	0.23	0.05	1.02	*	0.10	1.18	0.41	3.42	ns
Constrictions compelling to constant turning one's head on one side	5.67	0.27	0.09	0.84	*	0.16	1.33	0.33	5.28	ns
Unwillingness to have heterosexual interactions	4.90	0.33	0.12	0.91	*	8.08	7.50	1.59		**
Embarrassment and self-consciousness in the presence of the people of the other sex	4.73	0.32	0.11	0.93	*	2.06	0.44	0.14	1.38	ns
Anxiety while being in the confined spaces	7.87	0.27	0.10	0.70	*	0.86	1.89	0.49	7.36	ns
Constipations	4.17	0.37	0.14	0.99	*	0.24	1.33	0.42	4.24	ns
Trembling of extremities or of all the body	4.09	0.32	0.10	1.01	*	1.55	1.95	0.67	5.65	ns
Fits of uncontrollable anger	4.08	0.24	0.05	1.06	*	0.37	0.70	0.22	2.22	ns
Collapses occurring in difficult or distressing situations	0.30	0.76	0.28	2.05	ns	4.32	0.30	0.09	0.97	*
Pains in the heart area	1.15	1.66	0.65	4.24	ns	4.09	0.32	0.10	1.00	*

Coefficients of significance of relationship calculated for the Pearson's chi-squared test indicated * – $p < 0.05$; ** – $p < 0.01$; ns – a difference at the statistically insignificant level.

Discussion

Results of this study showed that among symptom declarations reported by patients before a course of intensive integrative psychotherapy with predominance of psychodynamic approach there is a lot of variables that are statistically significantly associated with the following improvement in terms of declared SI. Though, due to lack of control group, it is advisable to ask if the observed improvement allowed the authors to conclude on effectiveness of the psychotherapy in treatment of SI. In the view of the observed dynamics of SI prevalence and intensity (Tables 6 and 7), as well as in the view of the fact that the applied psychotherapy is widely acknowledged method of treatment in cases of patients with SI and others manifestations of auto-aggression [7–9, 22, 23], it is highly probable that the produced results referring to chances of improvement in terms of SI in selected groups of patients are reflecting responsiveness to the applied therapy.

In cases of symptoms associated both with increased and decreased chances of improvement in terms of SI significant gender differences of unclear nature were observed. Relatively more frequent reduction of SI was observed in women who reported the following symptoms: a sense of thinking-tempo decreasing and tempered mind acuity and a sense of memory deterioration. At the same time in men more frequent SI reduction was associated with: an unwillingness to have heterosexual interactions, frequent awakenings at night, a sense of unknown danger, and a sense of the others being hostile (Table 9). In a view of those findings it appears that directing patients with neurotic, behavioral and personality disorders who apart from SI are reporting the above-mentioned symptoms may be particularly beneficial. Their participation in the therapy brought high chances for elimination of SI or reduction of its intensity. Unfortunately it is not possible to clearly determine the nature of the associations between the above-mentioned variables and the improvement in terms of SI in the studied women and men. However, we may assume that at least a portion of those declarations is reflecting pathogenetic background of SI in which under the influence therapeutic factors beneficial changes occur [8-11, 25, 26].

Decreased probability of reducing SI in women was significantly associated with greater than in others intensity of groups of symptoms: obsessive-compulsive disorders, neurasthenia, autonomic disorders (Table 8). This suggested that in women SI co-occurring with greater intensity of those symptom groups may be characterized by lower responsiveness to the psychotherapeutic treatment. In men no such associations concerning neurotic symptom groups were found.

Symptom declarations that were associated with lower chances of SI reduction, or in other words with greater resistance of SI to therapeutic factors, were significantly different in women and in men. In women some of those symptom declarations appear to correspond with the three above-mentioned neurotic symptom groups (especially: vertigo, anxiety and other distressing feelings while being alone, absorbing activities aimed at avoiding a sickness, trembling of extremities or of all the body, apprehension

about the close ones who actually are safe, constrictions compelling to constant turning one's head on one side, constipations, and hypersomnia). However, some symptoms associated with lower chances of SI reduction in women (episodes of uncontrollable hunger e.g. at night, embarrassment and self-consciousness in the presence of the people of the other sex, unwillingness to having heterosexual interactions, anxiety while being in the confined spaces, fits of uncontrollable anger; Table 10) seemed to be more specific for other groups of disorders such as eating disorders or personality disorders. At the same time, effectiveness of SI treatment in man appeared decreased in patients who reported: pains in the heart area, and collapses occurring in difficult or distressing situations (Table 10). The produced results suggests there are broad differences between women and men in terms of psychopathological features associated with SI that are less responsive to psychotherapy. Also in cases of those symptoms associated with lower chances of SI reduction it is difficult to clearly determine the nature of the associations. Nonetheless, it seems that for patients with neurotic, behavioral and personality disorders in cases of coexistence of SI with the above-mentioned symptoms it might be beneficial to focus therapeutic measures at the areas, to intensify treatment or to consider methods that are not routinely in use in psychotherapeutic day hospitals. Specifying which methods might be helpful for SI treatment in such cases requires further studies.

A large portion of the disputed declarations referred to patients' sensations or fantasies of physical suffering or dying such as pains that are commonly associated with heart failure, collapses, fear of falling ill or apprehension about the close ones being hurt. Those associations may be more fully understood by referring them to one of psychodynamic concepts formulated by Menninger [8, 9] which is helpful in detail analysis and in therapy of SI and according to which there are three possible constituents of suicidal tendencies and thoughts: a wish to take one's own or other's life, a wish to be killed, and a wish to die. Most likely occurrence of SI together with other symptoms that imply such destructive impulses, may suggest the presence of the pathomechanisms that are relatively more resistant to psychotherapy aimed at insight and may require longer-term approach.

Gender differences in unwillingness to have heterosexual interactions were surprisingly considerable. While in men such attitude was associated with greater chances for improvement in terms of SI, in women its impact was opposite – the attitude was associated with lower chances for improvement in terms of SI. Many studies also demonstrated differences between men and women in terms of manifestations of auto-aggression [27, 28] ascribing it to factors such as for example psychological gender [29]. However, due to methodological differences between those research and this study clarifying the source of the observed diversity require further studies.

Relatively lower effectiveness of SI treatment in patients who suffer from greater intensity of some types of symptoms may be associated with various factors. Referring to female patients with higher intensity of symptoms of obsessive-compulsive disorders (OCD) potential cause might lay in differences in etiologies. Predominance

of biological, genetic, brain structure-related pathomechanisms [30, 31] might led to poorer responses to therapeutic factors applied in the course of the psychotherapy. Similar significance may be attributed to particularly frequent coexistence of OCD with unipolar depression [30, 31]. It is probable that in patients with more intensive OCD symptoms endogenic (melancholic) components contributed to greater extent to decreasing mood – in which case insight-oriented therapy might be less effective. The results provided in this study, as well as above-mentioned assumptions in connection with other sources that demonstrate effectiveness of antidepressive agents in treatment of OCD [32, 33] suggest that reducing of the psychopharmacotherapy in the patients with highly arduous OCD symptoms that co-occur with SI require special cautiousness.

In case of the female patients with greater intensity of neurasthenic symptoms it is difficult to clarify the mechanism behind decreased effectiveness of SI treatment. Neurasthenic symptoms are quite unspecific and may stem from various causes [33–35]. Probably the character of the symptoms itself continuously affects patients' attention and readiness to engage in therapy, thus limiting the extent to which the patients were able to gain from psychotherapeutic treatment.

Also in neurotic patients with autonomic symptoms it is not possible to explicitly explain the observed decrease in effectiveness of SI treatment. Some researchers describe in such patients lower ability to build up psychological insight, to verbalize internal experiences or even some traits of alexithymia, which might be associated with decreased responsiveness to the psychotherapy [9, 36, 37]. Probably similar difficulties might have been partly responsible for the clearly decreased effectiveness of SI treatment in the female patients reporting episodes of uncontrollable hunger [38, 39]. However, verification of those hypotheses and detailed assessment of causal mechanisms require further studies.

It is necessary to point that among limitations of this study, there was an inability to verify permanence of the improvement in terms of SI. However, this is one of typical drawbacks of nearly all the studies on changes occurring during psychotherapy conducted in everyday clinical practice – follow-up result are rarely obtained and if so frequently refer only to a percentage of the formerly treated patients. Furthermore, for accurate interpretation of the presented results it is advisable to stress that the studied patients at least temporarily were not burdened with high risk of suicide that would render day-hospital treatment impossible. Nonetheless, presence of other manifestations of auto-aggression such as self-inflicted cuts or having history of suicidal attempt were common. Also, the Symptom Checklist KO"O" question about "willingness to take one's own life" at which the study was based upon referred to the last seven days. That might have resulted in not registering during qualification or pre-discharge examination patients in whom SI only temporarily remitted. Secondly, the question referred to SI that were "arduous". Clinical experience shows that some patients, especially those with profound personality disorders or severely depressed, may regard SI as ego-syntonic. For example, SI may be viewed by those

patients as helpful way of discharging emotional tension or as thoughts about radical but adequate solution of a situation which is perceived as hopeless. For this reason among others it should be stressed that the SI declared by the patients are not synonymous with SI that are revealed in a course of psychiatric evaluation. The type of the applied treatment is important as well, as the psychodynamic psychotherapy did not include detailed plan of therapeutic interventions. Psychotherapeutic interactions were largely selected on an ongoing basis and in a highly individualized manner, thus, we may assume that the observed changes in each individual might have been a result of slightly different factors from the spectrum of psychotherapeutic interventions [12]. Lastly, this study included only a number of all the potential factors that might have been associated with the effectiveness of SI treatment. The study did not include factors such as ICD-10 or DSM-5 diagnosis, instead it was focused at reported symptoms occurring in neurotic, behavioral and personality disorders. This approach was applied because of authors' conviction about greater accuracy of determining the presence of the symptoms in the patients than the diagnostic units which frequently co-occurred and while characteristic of each of those units encompassed diverse psychopathologic pictures [40].

Conclusions

1. In patients treated with intensive integrative psychotherapy with predominance of psychodynamic approach in the day hospital due to neurotic, behavioral and personality disorders, through analysis of their symptoms reported at the time of qualification for the therapy, it was found that there was a number of factors statistically significantly associated with the following lack of improvement in terms of SI. It seems that those factors were linked with an increased resistance of SI to psychotherapeutic treatment.
2. The most important factors (potential prognostic factors of lack of improvement in terms of SI) referred to female patients. Those were as follows: greater intensity of 1) obsessive-compulsive symptoms, 2) symptoms of neurasthenia, 3) symptoms of autonomic disorders, as well as 4) presence of episodes of uncontrollable hunger, especially at night. This points to the necessity of providing those groups of female patients with special attention and to the importance of diligent selection of the therapeutic methods applied in those cases.

References

1. Victor SE, Klonsky ED. *Correlates of suicide attempts among self-injurers: A meta-analysis.* Clin. Psychol. Rev. 2014; 34(4): 282–297.
2. Anyansi TE, Agyapong VI. *Factors predicting suicidal ideation in the preceding 12 months among patients attending a community psychiatric outpatient clinic.* Int. J. Psychiatry Clin. Pract. 2013; 17(2): 120–124.
3. Pompili M, Serafini G, Innamorati M, Montebovi F, Palermo M, Campi S. et al. *Car accidents as a method of suicide: a comprehensive overview.* Forensic Sci. Int. 2012; 223(1–3): 1–9.
4. Hodgins DC, Mansley C, Thygesen K. *Risk factors for suicide ideation and attempts among pathological gamblers.* Am. J. Addict. 2006; 15(4): 303–310.
5. Makara-Studzińska M, Sygit K, Sygit M, Goździewska M, Zubilewicz J, Kryś-Noszczyk K. *Analysis of the phenomenon of attempted suicides in 1978-2010 in Poland, with particular emphasis on rural areas of Lublin Province.* Ann. Agric. Environ. Med. 2012; 19(4): 762–769.
6. Liu RT, Miller I. *Life events and suicidal ideation and behavior: A systematic review.* Clin. Psychol. Rev. 2014; 34(3): 181–192.
7. Fowler JC. *Core principles in treating suicidal patients*. Psychother. (Chic) 2013; 50(3): 268–272.
8. Leenaars AA. *Psychotherapy with sucidal people a person-centred approach.* Chichester, West Sussex; John Wiley & Sons Ltd.; 2004.
9. Gabbard GO. *Psychodynamic psychiatry in clinical practice.* 4th edition. Washington DC: American Psychiatric Publishing; 2005.
10. Aleksandrowicz J. *Psychoterapia*. Warsaw: PZWL Medical Publishing; 2000.
11. Czabała JC. *Czynniki leczące w psychoterapii*. Warsaw: Polish Scientific Publishers PWN; 2006.
12. Rodziński P, Sobański JA, Rutkowski K, Cyranka K, Murzyn A, Dembińska E. et al. *Skuteczność terapii na oddziale dziennym leczenia nerwic i zaburzeń behawioralnych w zakresie redukcji nasilenia i eliminacji myśli samobójczych.* Psychiatr. Pol. 2015 (accepted for publication).
13. Biskin RS, Paris J. *Management of borderline personality disorder.* CMAJ 2012; 184(17): 1897–1902.
14. Fennig S, Hadas A. *Suicidal behavior and depression in adolescents with eating disorders.* Nord. J. Psychiatry 2010; 64(1): 32–39.
15. Franko DL, Keel PK. *Suicidality in eating disorders: occurrence, correlates, and clinical implications.* Clin. Psychol. Rev. 2006; 26(6): 769–782.
16. Pilecki MW, Józefik B, Sałapa K. *The relationship between assessment of family relationships and depression in girls with various types of eating disorders.* Psychiatr. Pol. 2013; 47(3): 385–395.
17. Wasserman D, Rihmer Z, Rujescu D, Sarchiapone M, Sokolowski M, Titelman D. et al. *The European Psychiatric Association (EPA) guidance on suicide treatment and prevention.* Eur Psychiatry. 2012; 27(2):129-41.
18. Aleksandrowicz JW, Hamuda G. *Kwestionariusze objawowe w diagnozie i badaniach epidemiologicznych zab. nerwicowych.* Psychiatr. Pol. 1994; 28(6): 667–676.
19. Rewer A. *Skale kwestionariusza objawowego „O”.* Psychiatr. Pol. 2000; 34(6): 931–943.
20. 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.

21. Wołodźko T, Kokoszka A. *Classification of persons attempting suicide. A review of cluster analysis research.* Psychiatr. Pol. 2014; 48(4): 823–834.

22. Mazgaj D, Stolarska D. *Model terapii nerwic na oddziale dziennym.* Psychiatr. Pol. 1994; 28(4): 421–430.

23. Mielimąka M, Rutkowski K, Cyranka K, Sobański JA, Müldner-Nieckowski Ł, Dembińska E. et al. *Effectiveness of intensive group psychotherapy in treatment of neurotic and personality disorders.* Psychiatr. Pol. 2015; 49(1): 28−49.

24. Sobański JA, Klasa K, Cyranka K, Mielimąka M, Dembińska E, Müldner-Nieckowski Ł. et al. *Effectiveness of intensive psychotherapy in a day hospital evaluated with Neurotic Personality Inventory KON-2006.* Psychiatr. Pol. [E-pub ahead of print; DOI: 10.12740/ psychiatriapolska .pl/online-first/6].

25. Heitzman J, Furgał M, Pilecki M. *Etiologia, patogeneza i epidemiologia zaburzeń psychicznych.* In: Heitzman J. ed. *Psychiatria. Podręcznik dla studentów medycyny.* Warsaw: PZWL Medical Publishing; 2007. p.16–19.

26. Jakubczyk A, Żechowski C, Namysłowska I. Jadłowstręt psychiczny – *różne postacie, różne terapie.* In: Bomba J, Józefik B. ed.*: Leczenie anoreksji i bulimii psychicznej: co, kiedy, komu?* Krakow: Library of Polish Psychiatry; 2003. p. 47–53.

27. Angst J, Hengartner MP, Rogers J, Schnyder U, Steinhausen HC, Ajdacic-Gross V. et al. *Suicidality in the prospective Zurich study: prevalence, risk factors and gender.* Eur. Arch. Psychiatry Clin. Neurosci. 2014; 264(7): 557–565.

28. Blüml V, Kapusta ND, Doering S, Brähler E, Wagner B, Kersting A. *Personality factors and suicide risk in a representative sample of the German general population.* PLoS One 2013; 8(10): e76646.

29. Tsirigotis K, Gruszczyński W, Tsirigotis-Maniecka M. *Indirect self-destructiveness and psychological gender.* Psychiatr. Pol. 2014; 48(4): 759–771.

30. Sadock BJ, Kaplan HI. ed. *Kaplan and Sadock's synopsis of psychiatry: behavioral sciences/ clinical psychiatry.* 10th ed. Lippincott: Williams & Wilkins; 2007.

31. Citkowska-Kisielewska A, Aleksandrowicz JW. *Obsessive-compulsive disorder – psychopathology and therapy.* Arch. Psychiatr. Psychother. Volume 2005; 7(1): 29–42

32. Jarema M. ed. *Standardy leczenia farmakologicznego niektórych zaburzeń psychicznych.* Gdansk: Via Medica Medical Publishers; 2011.

33. Wciórka J, Pużyński S, Rybakowski J. ed. *Psychiatria*. Wroclaw: Elservier Urban & Partner; 2012.

34. Pużyński S, Wciórka J. ed. *Klasyfikacja zaburzeń psychicznych i zaburzeń zachowania w ICD – 10. Opisy kliniczne i wskazówki diagnostyczne.* Kraków, Warsaw: University Medical Publishing House "Vesalius", Institute of Psychiatry and Neurology; 1997.

35. Jaeschke R, Siwek M, Dudek D. *Neurobiologia zachowań samobójczych.* Psychiatr. Pol. 2011; 45(4): 573–588.

36. Taylor GJ, Bagby RM. *Psychoanalysis and empirical research: the example of alexithymia*. J. Am. Psychoanal. Assoc. 2013; 61(1): 99–133.

37. Schier K. *Aleksytymia – mechanizm obronny czy cecha osobowości? Nowe perspektywy badawcze.* Psychoterapia 2006; 136(1): 5–13.

38. Rizzuto AM. *Transference, language, and affect in the treatment of bulimarexia.* Int. J. Psychoanal. 1988; 69(3): 369–387.

39. Janusz B, Józefik B, de Barbaro B. *Koncepcja dialogowego Ja w psychoterapii – założenia teoretyczne.* Psychiatr. Pol. 2012; 46(5): 867–875.

40. Aleksandrowicz, JW. *Czy rzeczywiście nie ma zaburzeń nerwicowych?* Post. Psychiatr. Neurol. 1997; 6: 411–416.

Address: Paweł Rodziński
Department of Psychotherapy
Jagiellonian University Medical College
31-138 Kraków, Lenartowicza Street 14,