

## Personal hygiene in individuals with a diagnosis of schizophrenia: the role of gender, clinical characteristics, and the body self

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### Summary

**Aim.** The purpose of the study was to examine whether individuals with a diagnosis of schizophrenia differ in personal hygiene (PH) from controls and to assess the importance of gender, clinical characteristics and body self (body experience and body image) for PH.

**Method.** Eighty-two subjects with a diagnosis of schizophrenia in stable mental state and 82 control subjects were studied. All subjects completed the *Personal Hygiene Scale* (PHS), the *Body Self Questionnaire*, and answered the questions in *Cenestopathy Interview*. To confirm the validity of patients' replies, PHS was also completed by medical staff.

**Results.** Subjective assessment of PH correlated with ratings made by medical personnel. The patient group subjects rated their PH worse than controls. Men rated their PH worse than women. In the case of male patients, hygienic deficits were associated with numerous disturbances in body experience (cenestopathy, disturbances in interpreting and regulating body states, and disturbances in body identity), while in the case of women with schizophrenia they were related only to difficulties in interpreting and regulating body states and negative symptoms.

**Conclusions.** Individuals with a diagnosis of schizophrenia in a stable mental state manifest deficits in personal hygiene that are related not so much to negative body image as to a disturbed body experience. The determinants of hygiene deficits in schizophrenia are gender-dependent. The study did not include individuals with severe illness, which helps to understand the lack of correlation between negative symptoms of schizophrenia and PH in the male study group.

**Key words:** schizophrenia, personal hygiene, body self

### Introduction

Schizophrenia is related to poor self-care, including avoidance of contact with health services, non-compliance with medical recommendations, lack of physical activity, and poor grooming or eating habits [1–3]. These behaviors not only contribute

to impaired psychological well-being, but are also a significant risk factor for somatic illnesses and subsequent premature deaths in individuals with a diagnosis of schizophrenia [4]. Although deterioration in grooming skills is observed in severe depression and alcohol or drug addiction, losing interest in personal hygiene is considered relatively specific to schizophrenia, because it is observed in the prodrome [5], acute, and chronic phase of the disorder [6].

While losing interest in one's appearance is the characteristic, though subtle, trait of the prodromal state of the disorder [5], global and pervasive lack of hygiene in severe schizophrenia is easily noticed and emotionally evocative for others, including the medical staff [6, 7]. Patients with personal grooming deficiencies fail to dress their wounds, do not care for cleanliness of the body (hair, nails, teeth), and fail to attend to cleanliness of their clothes. These behaviours not only increase the risk of deterioration of physical health but also hinder the social relationships, leading to isolation and stigmatization of patients suffering from schizophrenia [3, 7].

Although medical staff well recognize the fact that patients with a schizophrenia diagnosis are generally unconcerned with their hygiene, only a few studies have addressed this problem. The studies on the issue focused on positive effect of educational and behavioral training concerning dental hygiene [8], behavioral reinforcement techniques improving grooming skills [3], and the relationship between the severely poor personal hygiene and impaired olfactory processing as well as negative symptoms of schizophrenia [6].

The loss of motivation to engage in hygiene care in individuals with a diagnosis of schizophrenia may be considered from two different perspectives. The first, rooted in descriptive psychiatry, relates to a decline of motivation to self-care as the manifestation of the negative syndrome of schizophrenia [6, 7]. The second approach highlights the importance of a psychological mechanism in explaining deficits in self-care behaviors [9, 10]. According to Orbach [9], emotional attitude towards the body and body experience (e.g., threshold of sensations, awareness of bodily states, physical anhedonia, and bodily detachment) is the basis for a self-care behavior. It was thus assumed that a positive attitude to the body and experiencing the body as a locus of understandable sensations, emotions and bodily needs is the basis for perceiving the body as worth caring for and protecting [9].

A theoretical model that includes the experience of one's own body and the emotional attitude towards its features is the tridimensional model of the body self [11]. According to this view, the body self (BS) is a side of personality that includes three aspects: (1) functions; (2) bodily identity; (3) cognitive-affective representations of body characteristics (body image). The functional and identity aspect of the body self refers to the experience of the body, while body image focuses on the affective evaluation of body characteristics. It was assumed that the experience of one's own body depends on the functions of the body self, which include the perception of sensations coming from both inside the body and from the environment, interpretation and regulation of emotions and bodily needs. The operativeness of these functions and the formal features of representation (e.g., the level of organization, differentiation, and stability) are the basis for the sense of bodily identity, i.e., the experience of separateness from

the environment, the sense of life, coherence with one's own body, and the body's continuity in time and space.

According to Sakson-Obada et al. [11], schizophrenia involves a disorganization of mental functions and representations [12, 13] resulting in severe disruptions of bodily identity. Research results show that schizophrenia is related to numerous disturbances in the experience of one's own body relating to the functional and identity aspects of the BS with a relatively positive body image. Persons with a schizophrenia diagnosis struggle with sensing disturbances which include strange, inexplicable sensations coming from within the body, known as cenestopathy [14], as well as alternating states of excessive and dulled sensitivity to environmental stimuli [11]. They are also characterized by difficulty in interpreting and regulating both emotions and bodily needs and by experiencing serious disturbances in bodily identity, including a distorted sense of separateness from their surroundings, a sense of alienation from the body, a sense of inner emptiness and death, and the disintegration of the body [11, 15–17]. It has also been proven that a negative body image is not specific to individuals with a diagnosis of schizophrenia, as these individuals do not differ in either appearance or physical fitness satisfaction from control subjects [11, 18, 19] although they do display slightly lower levels of acceptance of their gendered body features [11]. The above results suggest that in schizophrenia, disturbed experience of one's own body is a more important risk factor for self-care than emotional attitudes towards body characteristics. However, it cannot be ruled out that in schizophrenia a positive body image will promote the undertaking of grooming behaviors, as postulated by the motivational theory of self-care [9, 10].

### Aim

The purpose of this study was to assess differences in personal hygiene between the control and clinical groups and to evaluate the importance of demographic variables, medical characteristics of the illness, and BS (function, bodily identity, and two aspects of body image, namely, acceptance of appearance and acceptance of biological sex) for personal hygiene in persons with schizophrenia in a stable mental status. Prior to the analyses, it was assessed whether the patients' evaluations of their personal hygiene were consistent with those made by the medical staff. The possibility of extreme discrepancies in ratings was suggested by the results of previous studies. However, an inappropriately positive subjective assessment of personal hygiene, inversely related to staff ratings, was only characteristic of patients hospitalized for chronic schizophrenia [7]. Thus, it was predicted that patients in stable mental status would be able to make relatively adequate assessments of both personal hygiene and BS disturbances.

### Material

A total of 164 participants were interviewed. Of these, 82 were patients with stable mental status meeting diagnosis for schizophrenia according to ICD-10 (in-patients = 36, 1–4 days before leaving the hospital; outpatients = 46; age  $M = 38.0$ ;

$SD = 9.0$ ; 50% were males). The clinical group was recruited from various psychiatric hospitals, psychiatric day care units, and mental health clinics across Greater Poland province, Olsztyn, Szczecin. The clinical group was homogeneous, as outpatients and inpatients did not differ in personal hygiene, aspects of BS and psychiatric symptoms (PANSS). The control sample was recruited via a popular social networking portal, and was gender-, age-, and education level-matched. The following exclusion criteria were applied: chronic somatic illness or physical disability, addiction to psychoactive substances or alcohol (clinical and control group), acute state of psychosis, chronic course of schizophrenia (clinical group), a history of psychiatric hospitalization, current psychological or psychiatric treatment (control group).

In order to conduct the study, the subjects had individual appointments with the researcher after obtaining their written consent to participate in the project. Medical staff assessed patients' personal hygiene. All participants completed the following questionnaires: *Body Self Questionnaire*, *Personal Hygiene Scale* and answered the questions in *Cenestopathy Interview*. Information about the type of illness, its course, and symptomatology was obtained from the attending psychiatrist. Demographic and clinical characteristics of the groups are presented in Table 1. The studied groups did not differ in age ( $M = 38$  years) education, and BMI. Individuals with a diagnosis of schizophrenia were more likely to be single and more likely to live in rural areas and small towns than individuals in the control group. The clinical group was dominated by a diagnosis of paranoid schizophrenia and the mean age of the disease onset was 25 years.

Table 1. Demographic and clinical characteristics of the studied groups

	Schizophrenia (n = 82)	Controls (n = 82)	Test ( $\chi^2 / t; p$ )
Gender (n, %)			
Female	41 (50%)	41 (50%)	0.0; n.s.
Male	41 (50%)	41 (50%)	
Relationship status			
Single	64 (78%)	23 (28%)	4.1; 0.001
In relationship	18 (22%)	59 (72%)	
Age (SD)	38.0 (9.0)	38.0 (9.6)	0.0; n.s.
BMI (SD)	27.3 (5.4)	25.8 (4.4)	1.97; n.s.
Years of education (SD)	13.3 (2.8)	13.4 (2.8)	0.14; n.s.
Place of residence			
Village	11 (13.4%)	2 (2.4%)	27.4; 0.001
Town (below 50 thous.)	24 (29.3%)	4 (4.9%)	
City (above 50 thous.)	47 (57.3%)	76 (92.7)	
Clinical characteristics	Mean	SD	
Age of onset	25.6	7.9	

table continued on the next page

Number of hospitalization (in last three years)	1.55	1.67	
Type of onset			
Acute	60 (73.2%)		
Gradual	22 (26.8%)		
PANSS			
Positive scale	12.77	5.44	
Negative scale	17.24	7.62	
General psychopathology	33.32	10.25	
Type of schizophrenia (n, %)			
Paranoid	72 (87.8%)		
Undifferentiated	6 (7.3%)		
Hebephrenic	1 (1.2%)		
Residual	1 (1.2%)		
Simplex	2 (2.4%)		

## Method

The *Personal Hygiene Scale* was used to assess the frequency of common hygiene behaviors (dressing wounds, keeping nails, clothes, and teeth clean). This measure was constructed based on the results of a factor analysis (120 working individuals were surveyed). Its implementation made it possible to select six statements (out of fourteen) with a relatively high factor load ( $>0.4$ ; Cronbach's  $\alpha = 0.73$ ). The questionnaire was completed both by patients and control subjects, as well as by medical staff who assessed the frequency of patients' hygiene behaviors (Cronbach's  $\alpha$  patients = 0.75; Cronbach's  $\alpha$  staff score = 0.86). When calculating the score, the mean was used, it ranged from 1 to 5 (a Likert scale of 1 – “almost never”, 5 – “almost always” was used). The higher the score, the more hygiene-related behaviors.

The *Body Self Questionnaire* [11] was used to assess disturbances in functions, bodily identity, and body image. Four scales measured BS functions: (1) Lowered sensation threshold; (2) Elevated sensation threshold; (3) Interpretation of emotions and bodily needs; (4) Regulation of emotions and bodily needs. Another scale (5) examined bodily identity, two measured body image, namely (6) acceptance of appearance, (7) acceptance of biological sex. When calculating the scores, mean scores were used, meaning that they ranged from 1 to 5 (a Likert scale was used, 1 – “strongly disagree”, 5 – “completely agree”). The higher the scores, the more dysfunctional the BS.

The *Cenestopathy Interview* was used to assess the presence of 10 cenestopathic sensations (e.g., unusual lightness or heaviness, migratory sensations, strange pain), which were distinguished based on literature analysis [20, 21]. Cenestopathic sensa-

tions were defined as strange and foreign body sensations whose presence is difficult to explain by the people experiencing them [20]. The higher the score, the more cenestopathic sensations the subject was diagnosed with. The *PANSS scale* (*Positive and Negative Syndrome Scale*, [22]) was used to assess symptoms of schizophrenia (positive, negative, and general psychopathology).

Spearman's  $r$  correlation coefficient, Kendall's  $\tau$ , and Wilcoxon rank-sum test were used to compare subjective ratings of PH and ratings made by staff. Considering the results of Leven's test for equality of error variance, a two-way ANOVA was used to assess differences in hygiene between groups, taking into account gender and assignment to the clinical or control group. Correlation analyses (Pearson and Spearman) and intergroup comparisons (Mann-Whitney test) were used to assess associations between PH and demographic variables. Due to gender differences in mean personal hygiene scores, analysis of the contributions of clinical and personality factors was performed separately for men and women using correlation coefficients (Pearson) and between-group comparisons (Mann-Whitney test).

## Results

### Subjective evaluation of personal hygiene versus medical staff evaluation

Subjective ratings of PH correlated with those made by medical personnel ( $r = 0.474$ ;  $p < 0.001$ ), and these ratings were similar ( $M_{\text{personnel}} = 3.96$ ;  $SD = 0.88$ ;  $M_{\text{patients}} = 3.96$ ;  $SD = 0.73$ ;  $Z = 0.62$ ;  $p = 0.538$ ). Consistency between scores was the greatest for easily observable manifestations of PH, such as attention to cleanliness of nails ( $\tau = 0.664$ ;  $p < 0.001$ ) and clothes ( $\tau = 0.450$ ;  $p < 0.001$ ) and paying attention to one's appearance ( $\tau = 0.622$ ;  $p < 0.001$ ). In contrast, assessments of behaviors whose presence was more difficult for medical personnel to identify displayed a greater variance in ratings: dressing wounds ( $\tau = 0.175$ ;  $p = 0.066$ ), brushing teeth ( $\tau = 0.265$ ;  $p = 0.004$ ), and preventing skin lesions ( $\tau = 0.267$ ;  $p = 0.004$ ). Given the above data and the doubts raised by medical staff about the adequacy in estimating the last three aspects of PH, further analyses focused on patient ratings.

### Personal hygiene in the clinical and control group

The ANOVA results, which included clinical or control group assignment and gender, showed a strong effect of gender ( $F(1,160) = 25.57$ ;  $p < 0.001$ ;  $\eta_p^2 = 0.14$ ), and a slightly weaker effect of group assignment ( $F(1,160) = 18.2$ ;  $p < 0.001$ ;  $\eta_p^2 = 0.10$ ). That means that patients with a diagnosis of schizophrenia have lower PH than controls ( $M_{\text{sch}} = 3.96$ ;  $SD = 0.73$ ;  $M_{\text{contr.}} = 4.38$ ;  $SD = 0.60$ ), and women in both groups have higher PH than men ( $M_{\text{f.contr.}} = 4.60$ ;  $SD = 0.46$ ;  $M_{\text{f.sch.}} = 4.24$ ;  $SD = 0.61$ ;  $M_{\text{m.contr.}} = 4.16$ ;  $SD = 0.66$ ;  $M_{\text{m.sch.}} = 3.96$ ;  $SD = 0.74$ ).

Personal hygiene in the context of demographic, medical and body self variables in the clinical group

BMI ( $r = -0.023$ ;  $p = 0.835$ ), patients' age ( $r = 0.031$ ;  $p = 0.785$ ), being in a relationship ( $z = 0.258$ ;  $p = 0.796$ ), and place of residence ( $\rho = 0.098$ ;  $p = 0.381$ ) did not correlate with PH. In contrast, years of education positively correlated with PH ( $r = 0.331$ ;  $p = 0.002$ ). At the same time, men with schizophrenia were found to be less concerned about their hygiene than women ( $z = 3.46$ ;  $p < 0.001$ ;  $M_f = 4.24$ ;  $SD = 0.61$ ;  $M_m = 3.69$ ;  $SD = 0.74$ ;  $z = 3.46$ ;  $p < 0.001$ ).

Results of analyses of the relationship of PH to clinical characteristics of schizophrenia, conducted separately in men and women, are presented in Table 2.

Table 2. Relationship of personal hygiene and clinical variables

Hygiene	Positive symptoms <sup>a</sup>	Negative symptoms <sup>a</sup>	General psychopathology <sup>a</sup>	Number of hospitalizations (last 3 years) <sup>a</sup>	Age of onset <sup>a</sup>	Onset (acute/gradual) <sup>b</sup>
Female	$r = -0.133$	$r = -0.346^*$	$r = -0.199$	$r = -0.165$	$r = -0.212$	$z = 0.353$
Male	$r = -0.159$	$r = -0.009$	$r = -0.301$	$r = -0.289$	$r = -0.162$	$z = 0.993$

<sup>a</sup> Pearson's correlation coefficient

<sup>b</sup> Mann-Whitney test

\*  $p < 0.05$

The conducted analyses showed that in the group of men none of the clinical characteristics of schizophrenia was associated with PH. In contrast, in the group of women, only the severity of negative symptoms correlated with poorer hygiene. Other characteristics of the disease (positive symptoms, general psychopathology, number of hospitalizations, age of onset, and type of onset) were not significant for the frequency of hygiene behaviors.

The associations of PH with the body self, separately in the group of women and men with a diagnosis of schizophrenia are shown in Table 3.

Table 3. Relationships of personal hygiene and the body self in the clinical group

Hygiene	Heightened threshold	Lowered threshold	Cenestopathy	Interpretation	Regulation	Identity	Acceptance of appearance	Acceptance of gender
Female	$r = -0.181$	$r = -0.084$	$r = -0.218$	$r = -0.364^*$	$r = -0.364^*$	$r = -0.218$	$r = -0.169$	$r = -0.171$
Male	$r = -0.245$	$r = -0.210$	$r = -0.370^*$	$r = -0.364^*$	$r = -0.396^*$	$r = -0.335^*$	$r = -0.251$	$r = -0.182$

$p < 0.05$

In women with a diagnosis of schizophrenia, lower frequency of hygiene behaviors was associated only with disturbances in the interpretation and regulation of emotions and bodily needs. In contrast, in men, lower PH was associated with cenestopathy, difficulties in interpreting and regulating emotions and physical needs, as well as with disturbances in bodily identity (see Table 2).

## Discussion

Hygiene neglect in individuals with a diagnosis of schizophrenia is one of the important manifestations of deficits in self-care. Lack of concern for hygiene increases the risk of health deterioration and is a cause of stigma and isolation of people suffering from schizophrenia [3, 4]. Previous studies have focused on PH in individuals with chronic schizophrenia and those in acute psychosis [3, 6, 7]. In the aforementioned studies, PH was assessed by medical personnel, based on an implicit assumption that patients themselves were not able to adequately assess the difficulties associated with caring for their own hygiene. Although this assumption was accurate in regard to people with a chronic course of schizophrenia [7], there were no studies that examined: (1) whether patients remaining in a stable and relatively good mental state are characterized by a lower PH compared to control subjects; (2) whether the subjective assessment of hygiene behaviors in this group is consistent with the assessments made by medical staff. Moreover, previous studies have focused on the relationship between hygiene deficits and negative symptoms of the illness, neglecting both the role of personality variables and the relevance of the gender factor for PH. The results of the present study fill this gap, as its participants were individuals in a stable mental state (outpatients and patients just before the end of psychiatric hospitalization), whose ratings of PH were compared with those of medical staff, and the analyses included the relevance of such factors as the participants' gender, the symptoms of the illness, and disturbances in the bodily self for PH. The results of our study on personal hygiene in persons with a diagnosis of schizophrenia are moderately optimistic. First, we found that individuals with a diagnosis of schizophrenia in a stable mental state accurately assessed personal hygiene, as the frequency of easily observable behaviors was similarly assessed by the patients and the medical staff. Thus, there was no effect of inadequate and overly positive assessment of personal hygiene, which has been demonstrated in people with chronic schizophrenia [7]. Second, although patients rated their own hygiene worse than controls, at the same time the gender effect was stronger than the group effect. This means that men (whether they are ill or not) are less concerned about personal hygiene than women. This result is not surprising given that body appearance and consequently care, is more important to women's identity than men's.

Unlike previous studies [3, 6, 7], we focused on a subjective assessment of PH. This decision was made due to the lack of significant discrepancies between subjective and medical staff ratings and also because of the staff's uncertainty concerning the frequency of behaviors that are difficult to observe (dressing wounds, brushing teeth). The present study proved that both women and men with a diagnosis of schizophrenia are characterized by lower PH than controls, and that the frequency of hygiene behav-



iors is independent on such demographic characteristics as place of residence, BMI, or being in a relationship. The only demographic variable (besides gender) associated with PH was the number of years of education completed. The result showing that the more years of education, the better the self-rated hygiene may arise from: (a) the generally better functioning of individuals who continue their education despite the developing disease process; (b) a higher socioeconomic status, which on the one hand promotes concern for one's own health and on the other hand facilitates education [23]; (c) the social desirability, which among individuals with higher education promotes awareness of the risk of stigmatization [24], which is reflected in the way they answer questions (maintaining a positive self-image).

Personal hygiene was found to be independent of medical characteristics of the disease, such as positive symptoms, general psychopathology, age and type of disease onset, or number of hospitalizations within the previous three years. The expected relationship between hygiene neglect and the severity of negative symptoms was found only in the female group. In this group, the key factors for reduced PH were increased apathy ( $\tau = 0.309$ ;  $p = 0.011$ ) and emotional withdrawal ( $\tau = 0.262$ ;  $p < 0.030$ ). This result, combined with the data showing that there were no differences in the severity of negative symptoms between men and women ( $z = 0.363$ ;  $p = 0.717$ ;  $M_f = 17.44$ ;  $M_m = 17.05$ ), suggests that a decline in life force and emotional reactivity, especially for women struggling with schizophrenia, is manifested by a weakening of self-care habits. In contrast, in the case of men, in whom the internalization of hygiene habits is weaker than in women, and appearance itself is not central to identity, the reduction in life force due to the course of the disease does not significantly reduce the already baseline poorer personal hygiene. It should be emphasized, however, that the result suggesting a relative independence of PH from the clinical features of schizophrenia should be seen more as an effect of specificity of the studied group than a general pattern. The study was conducted with patients in a stable mental state, in good contact and cooperative. This means that patients with a severe course of schizophrenia (chronic form of the illness, negative syndrome) in whom serious hygienic deficits are observed [3, 6, 7] did not participate in the study.

The relevance of the body self to PH in individuals diagnosed with schizophrenia has been grounded in a motivational self-care theory [9, 10]. According to this approach, physical well-being depends on both the experience of one's own body and the emotional attitude towards the body. The results of the present study show that disturbed body experience is crucial for hygiene deficits in schizophrenia, but its role depends on gender. Whereas for female patients, difficulties in engaging in self-care behaviors are related only to disturbances in the interpretation and regulation of emotions and physical needs, for male patients, hygiene deficits are related to disturbances in bodily identity, and such aspects of the functional dimension of the body self as cenestopathy, the interpretation and regulation of bodily states. The greater importance of disruptions in body experience for PH in men with schizophrenia, compared to women with schizophrenia, suggests that men's preoccupation with a disorganized body experience hinders the undertaking of PH habits more strongly than do the negative symptoms. In turn, the strong internalization of hygiene habits in women makes these

behaviors less sensitive to the negative impact of a disorganized body experience, and more sensitive to a general decrease in life force and motivation (negative symptoms).

Our study found that PH is not associated with body image, i.e., satisfaction with appearance and gendered body features in individuals with a diagnosis of schizophrenia. Previous findings have demonstrated the importance of negative body attitudes for self-care behaviors [25, 26] and were confirmed by the results of analyses in the control group. The results showed that hygiene neglect correlated most significantly with negative body image in both the healthy females ( $r_{\text{gender.sat.}} = -0.457; p = 0.003$ ) and males ( $r_{\text{apper.sat.}} = -0.449; p = 0.003$ ). Thus, while in the control group hygiene deficits can be explained by a negative attitude towards the body which actively interferes with caring for hygiene, in schizophrenia the key factor is the lack of engagement in the physical dimension of existence. It manifests itself in hygiene deficits, which results not so much from negative emotions towards the body as from being lost in the bodily experience.

### Conclusions

1. Subjects with schizophrenia in a stable mental state accurately assess their personal hygiene, which is lower compared to the control group.
2. Except for gender and education, demographic variables do not have the effect on PH in individuals with schizophrenia diagnosis. The study did not address economic status, which may be relevant to self-care and hygiene behaviors. The greater importance of gender for PH than whether the subjects belonged to the clinical or control group is a result of socialization, which promotes better personal hygiene in women than in men (both ill and healthy).
3. The results of previous studies and clinical observations demonstrate that the severe course of schizophrenia is associated with deficits in PH. This means that the lack of association between medical characteristics of the disease and PH was due to the specificity of the clinical group (high functioning individuals with a stable mental state, with the absence of a negative syndrome).
4. The determinants of PH deficits in schizophrenia are gender-specific. In the case of men, preoccupation with the chaotic way of experiencing one's own body makes it more difficult to engage in hygiene behaviors than in the case of female patients, for whom appearance is much more central to identity. In female patients, both the problems with interpreting and regulating body states as well as and a decrease in overall life force and motivation make PH more difficult.
5. The disruption of body self in schizophrenia refers not so much to a negative emotional attitude towards the body as to a lack of affective engagement with the body, the behavioral expression of which is a diminished interest in appearance and hygiene.
6. An important goal of therapy for people diagnosed with schizophrenia is not so much "liking one's own body" as gaining orientation in the realm of one's own sensations and emotions. A normalization of bodily experiences should increase the patient's concern for their own hygiene, especially in men with schizophrenia.

## References

1. Haddad PM, Brain C, Scott J. *Nonadherence with antipsychotic medication in schizophrenia: Challenges and management strategies*. Patient Relat. 2014; 5: 43–62.
2. Roick C, Schindler J, Angermeyer MC, Fritz-Wieacker A, Riedel-Heller S, Frühwald S. *Health habits of patients with schizophrenia: A general pattern?* Neuropsychiatry 2008; 22(2): 100–111.
3. Wong S, Flanagan S, Kuehnel T, Liberman R, Hunnicutt R, Adams-Badgett J. *Training chronic mental patients to independently practice personal grooming skills*. Hosp. Community Psychiatry 1998; 39(8): 874–879.
4. Wildgust HJ, Hodgson R, Beary M. *The paradox of premature mortality in schizophrenia: New research question*. J. Psychopharmacol. 2010; 24(4 Suppl.): 9–15.
5. George M, Maheshwari S, Chandran J, Manohar JS, Rao TSS. *Understanding the schizophrenia prodrome*. Indian J. Psychiatry 2017; 59(4): 505–509.
6. Brewer WJ, Edwards J, Anderson V, Robinson T, Pantelis C. *Neuropsychological, olfactory, and hygiene deficits in men with negative symptom schizophrenia*. Biol. Psychiatry. 1996; 40(10): 1021–1031.
7. Hsu Y, Lin W, Kuo H. *Schizophrenic patients' poor perception in personal hygiene*. Ment. Health Fam. Med. 2017; 13: 369–374.
8. Hsieh CJ, Pan FC. *Rebuilding the dental hygiene habits of the hospitalized patients with schizophrenia*. Int. J. Med. Health Res. 2011; 5(10): 501–503.
9. Orbach I. *The role of the body experience in self-destruction*. Clin. Child Psychol. Psychiatry 1996; 1(4): 607–619.
10. Orbach I, Mikulincer M. *The Body Investment Scale: Construction and validation of a body experience scale*. Psychol. Assess. 1998; 10(4): 415–425.
11. Sakson-Obada O, Chudzikiewicz P, Pankowski D, Jarema M. *Body image and body experience disturbances in schizophrenia: An Attempt to introduce the concept of body self as a conceptual framework*. Curr. Psychol. 2018; 37(1): 390–400.
12. Bleuler E. *Dementia praecox oder gruppe der schizophrenien*. Lipsk: Franz Deuticke; 1911.
13. Federn P. *Ego psychology and psychosis*. New York: Basic Books; 1952.
14. Stanghellini G, Ballerini M, Fusar Poli P, Cutting J. *Abnormal bodily experiences may be a marker of early schizophrenia?* Curr. Pharm. Des. 2012; 18(4): 392–398.
15. Stanghellini G, Ricca V. *Alexithymia and schizophrenias*. Psychopathology 1995; 28(5): 263–272.
16. Chapman LJ, Chapman JP, Raulin ML. *Body-image aberration in schizophrenia*. J. Abnorm. Psychol. 1978; 87(4): 399–407.
17. Stanghellini G, Ballerini M, Blasi S, Mancini M, Presenza S, Raballo A et al. *The bodily self: A qualitative study of abnormal bodily phenomena in persons with schizophrenia*. Compr. Psychiatry 2014; 55(7): 1703–1711.
18. Koide R, Iizuka S, Fujihara K, Morita N. *Body image, symptoms and insight in schizophrenia*. Psychiatry Clin. Neurosci. 2002; 56(1): 9–15.
19. Izydorczyk B. *Psychological profile of bodily self features of young Polish women – comparative analysis of bodily self structure of woman with eating disorders and psychosis*. Psychiatr. Pol. 2011; 45(5): 653–670.
20. Gross G, Huber G, Klosterkötter J, Linz M. *Bonner Skala für die Beurteilung von Basissymptomen*. Berlin: Springer; 1987.

21. Parnas J, Møller P, Kircher T, Thalbitzer J, Jansson L, Handest et al. *EASE: Examination of anomalous Self-experience*. *Psychopathology* 2005; 38(5): 236–258.
22. Kay S, Opler L, Lindenmayer J. *The Positive and Negative Syndrome Scale (PANSS): Rationale and standardisation*. *Br. J. Psychiatry* 1989; 155(7): 59–65.
23. Broer M, Bai Y, Fonseca F. *Socioeconomic inequality and educational outcomes. IEA research for education*. Cham: Springer; 2019.
24. Ones D, Viswesvaran C, Reiss AD. *Role of social desirability in personal testing for personal selection: The red herring*. *Am. J. Appl. Psychol.* 1996; 81(6): 660–979.
25. Cook-Cottone C, Gueker W. *The development and validation of the Mindful Self-Care Scale (MSCS): An assessment of practices that support positive embodiment*. *Mindfulness* 2018; 9(1): 161–175.
26. Kubiak A, Sakson-Obada O. *Repetitive self-injury and the body self*. *Psychiatr. Pol.* 2016; 50(1): 43–54.

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