

# Schizoid Personality and the Dimensional Conceptualization of Personality Disorders According to ICD-11

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## Abstract

**Aim:** Contemporary scientific research and clinical practice are increasingly incorporating dimensional models of personality disorders. This trend requires precise clarification of the relationship between traditional ways of conceptualizing disorders and new proposals based on dimensions. The purpose of this study was to examine the relationship between schizoid personality traits and ICD-11 diagnostic components, and to determine to what extent schizoid personality as a dimensional construct can be predicted (diagnosed) based on ICD-11 conceptualization components, such as severity of personality disorder and pathological traits.

**Method:** The study group consisted of 176 individuals aged 18–71 years ( $M = 28.3$ ,  $SD = 10.3$ , 83.5% female). Personality Inventory for ICD-11 (PiCD) was used to determine the level of pathological personality traits, and Self and Interpersonal Functioning Scale (SIFS) was used to assess the level of severity of personality disorders. The Character Styles Questionnaire was used to determine the level of schizoid personality disorder.

**Results:** The results of correlation analysis show significant relationships between schizoid personality disorder (as a dimensional construct) and scales measuring the level of severity of personality disorder (identity, self-direction, empathy, intimacy) and the level

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of pathological traits (except for anankastia). The results of the stepwise regression analysis show that the first stage of personality disorder assessment according to the ICD-11 model, i.e. diagnosing the level of severity of personality disorders, explains 41% of schizoid personality, and the inclusion of pathological traits (the detachment trait turned out to be important here) raises this percentage to 54.

**Conclusion:** The results suggest a convergence between the new dimensional conceptualizations of personality disorders and previous categorical approaches and the need for future research.

**Keywords:** dimensional model, schizoid personality disorder, ICD-11, personality disorders, The Self and Interpersonal Functioning Scale, Personality Inventory for ICD-11

Research, to a very large extent, and increasingly also clinical practice, is influenced by dimensional models of personality disorders. This trend makes it necessary to articulate clearly the transitions between known ways of conceptualizing disorders and new proposals. The most crucial issues in the area of the psychopathology of personality disorders are as follows (for more detailed discussion: Hopwood et al., 2023):

1. The development of dimensional models of psychopathology in general (e.g., the Hierarchical Taxonomy of Psychopathology, HiTOP – Kotov et al., 2021).
2. Conceptualization of personality disorders as dimensional constructs (measured quantitatively often with self-report) (Cierpiałkowska & Pasikowski, 2004; Winarick & Bornstein, 2015).
3. The broad evidence-based shift in personality disorders assessment resulting the implementation of the hybrid DSM-5 Alternative Model for Personality Disorders (American Psychiatric Association, 2013) and the International Classification of Diseases 11th Revision (World Health Organization, 2022 with fully dimensional approach for descriptive clinical assessment).

Contemporary classifications of personality disorders reach precisely for dimensional solutions. The first one that combined categories and dimensions in personality disorders assessment was the DSM-5 AMPD (American Psychiatric Association, 2013), and in 2022, the ICD-11 classification came. The last is largely based on the former, and there is an impressive body of research on how they relate to each other in terms of common nosology (e.g., Bach et al., 2020), the diagnostic process, and compatible assessment issues (McCabe & Widiger, 2020; Zimmermann et al., 2022), as well as treatment implications (Bach & Simonsen, 2021).

The assessment, according to the DSM-5 AMPD (APA, 2013), includes a level of personality functioning (level of dysfunction) and the five-domain trait model. The level of personality functioning (criterion A) is assessed in two areas: self (identity and self-direction), and interpersonal (empathy and intimacy). In the five-domain trait model (criterion B), the negative affect, detachment, antagonism, disinhibition, and psychoticism are included. Additionally, the hybrid

analysis of both aspects can be used to figure out one of six types of personality disorders. The ICD-11 (WHO, 2022), the distinction between the core of personality disorders and then traits is similar, but there is no personality disorder type diagnosis. In detail, the clinician first assesses the level of severity (from 0 – *no personality disorder*, 1 – *personality difficulty*, 2 – *mild*, 3 – *moderate*, 4 – *severe personality disorder*). Then clinician can check the presence of prominent traits (negative emotional stability, detachment, dissociality, disinhibition, and anankastia), and a borderline pattern qualifier (the categorical diagnosis based on a set of criteria, analog to the DSM-IV-TR). The severity level 2 is the threshold for personality disorders, and the severity is the only obligatory step in the assessment of personality disorders according to the ICD-11. Studies show that pathological trait domains in ICD-11 and DSM-5 AMPD are comparable despite noticeable differences, like the anankastia in ICD-11 and psychoticism in DSM-5 AMPD (Bach et al., 2017, 2022; Mulder, 2021).

The shift in the conceptualization and assessment of personality disorders has to do with the lack of empirical evidence for accurate and distinguishable types of personality disorders (Hopwood et al., 2018; Trull & Widiger, 2022). Arguments that speak for the dimensional approaches in personality disorders assessment include, among others, broad co-occurrence of categories (personality types) and high heterogeneity among patients of this same type (Bogaerts et al., 2021). Categorical thinking and decision-making are still judged as useful by some psychiatrists and clinical psychologists (Morey & Hopwood, 2020). For practicing clinicians, global and significant changes in the way personality disorders are classified can be challenging, especially now, at the beginning of this process (e.g., dimensional assessment of personality disorders in the ICD-11), where the actual clinical utility is only just taking shape (Bornstein & Natoli, 2019). This creates an opportunity for research and clinical practice to converge but requires sensitivity in creating so-called crosswalks („bridges”) so that what is new is reflexively combined with the experience and valuable heritage acquired so far (e.g., Bastiaens et al., 2022; Tracy et al., 2021).

Thus, in line with the shift in personality disorders conceptualization, the general aim of this study was to enhance the reflective transition between personality disorder characteristics from categorical to dimensional model according to the ICD-11, that needs to be empirically tested in order to establish its clinical utility. This objective has been achieved with the example of schizoid personality disorder. We examined the assumed relationships between schizoid personality characteristics and ICD-11 diagnosis components, and we answered the question of to what extent schizoid personality as a dimensional construct could be predicted based on ICD-11 conceptualization components (severity of personality disorder and maladaptive traits). This study was the first to examine the relationship between schizoid personality disorder and the ICD-11 personality disorder assessment components.

Schizoid personality disorder (SPD) is characterized by “a pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings” (APA, 1994, p. 638). The most common features that appeared in the SPD criteria included distancing, isolation, emotional

coldness, and a lack of activities for pleasure (Cheli et al., 2023). It was included in cluster A and shares with the schizotypal and paranoid personality disorders eccentricity and oddity. The prevalence in the community sample between 0.7–4.9% was reported (Sansone & Sansone, 2011).

A schizoid personality disorder is rarely diagnosed and poorly studied, not having its *golden age* to this date, but at the same time is quite well recognizable by clinicians and understood as deep and complex in its phenomenology (Shedler & Westen, 2004; Thylstrup & Hesse, 2009). The reason for the sin of negligence may lie in the trait of isolation (detachment), which may make schizoid people avoid participating in studies or visiting a psychologist (Cheli et al., 2023; Triebwasser et al., 2012). Additionally, distinguishing schizoid personality disorder from other personality disorders, such as avoidant personality disorder (Winarick & Bornstein, 2015) and schizotypal disorder (Shedler & Westen, 2004), might be problematic. Literature suggests that this is also true for alexithymia (Coolidge et al., 2013), as well as for schizophrenia, psychosis, and autism, which can also be difficult to differentiate (Boules-Katri et al., 2019; Cook et al., 2020).

Importantly, however, the term *schizoid personality disorder* (SPD), as a personality disorder distinctive type, is used only in the DSM-5 (Section II) and in the ICD-10. In the new dimension-based classifications, such as the DSM-5 AMPD and the ICD-11, schizoid type is not included directly, but it is possible to depict many of its characteristics in the dimensional proposals. Although several recent empirical studies have shared the view that SPD lacks construct validity and the absence in more contemporary classifications is legitimate (e.g., Triebwasser et al., 2012), there still is enough evidence to pay attention to the set of both traits and theory-based pathomechanisms that underlie the SPD symptomatology (Paap et al., 2022).

First, there is empirical support for the core FMM dimensions that constitute SPD (Widiger et al., 2002): low extraversion (warmth, gregariousness, assertiveness, activity, excitement-seeking, positive emotions) and low openness to experience. Among the maladaptive traits that were recommended for the diagnosis of schizoid personality disorder in the DSM-5 are social withdrawal, social detachment, intimacy avoidance, restricted affectivity, and anhedonia (Glover et al., 2012). Second, the dimensional Hierarchical Taxonomy of Psychopathology (HiTOP) model (Kotov et al., 2021) proposes the SPD delineation that is consistent with previous results. SPD is represented in the HiTOP model by the detachment spectrum, including the following traits: anhedonia, depressivity, intimacy avoidance, suspiciousness, withdrawal, interpersonal passivity, disaffiliativeness, and low attention-seeking (Carvalho et al., 2020). Third, the Interpersonal Circumplex Model (IPC – e.g., Gore & Pincus, 2013) offers a bi-dimensional picture of schizoid functioning that is low in warmth and, at the same time, low in dominance, loading the *aloof-introverted* quadrant of the IPC (*unas-sured-submissive* and *cold-hearted* traits). Together with this model, the relationship patterns of SPDs can be understood (according to the complementarity rule) as reacting to cold and dominant others. Fourth, SPD was hypothesized to have a dismissing-avoidant attachment style (that is low in attachment anxiety

and slightly high in attachment avoidance); however, the results were not clear (Meyer et al., 2004). Attachment avoidance was proved to be a shared underlying dimension of SPD and avoidant PD, whereas attachment anxiety is uniquely associated with avoidant PD (Winarick & Bornstein, 2015). Fifth, the SPD still seems to be a clinically useful construct allowing not only for the description of the symptoms (traits, behaviors) but also for understanding the pathomechanism in terms of, for example, psychoanalytic and cognitive approaches (Winarick, 2020). For example, according to the cognitive approach, the self-image of individuals with SPD is heavily oriented toward loneliness. They perceive others as intrusive and controlling (Beck et al., 2004). Key beliefs are, for example, “I am different... I am a loner... I am nobody...” (Winarick, 2020, p. 184). In contrast, in psychodynamic approaches, there is an idea that SPD symptoms are rather a defensive formation that covers more painful and overstimulating feelings (Akhtar, 1987). Schizoid individuals withdraw, detach, and isolate because of their split object representations that are projected to others, which are, in consequence, seen as intrusive or overwhelming. Based on Kernberg’s theory (Clarkin et al., 2013), the SPD is located at a low or medium borderline level of personality organization, characterized by general personality rigidity, strong identity pathology (diffused identity), splitting, social deficits in reality testing, and pathological moral functioning.

Concluding, the core underlying dimensions as social anhedonia, low empathy, highly restricted emotional expression, and detachment traits (Triebwasser et al., 2012; Winarick, 2020; Winarick & Bornstein, 2015) might appear more important in understanding the schizoid phenomena than the traditional distinctive personality disorder type category.

Given the fact of removing categories from personality disorders assessment (in the case of ICD-11 entirely), one may wonder how to transfer categorical thinking (based on distinctive criteria) to available dimensions. What maladaptive traits and level of personality disorders’ severity will correspond to specific disorder types? Although some such work has been done, for example in the DSM-5 AMPD hybrid model (with optional diagnosing six personality types), there are still substantial gaps. First, there is no schizoid type of category available in the AMPD model, so it could not have been analyzed for this disorder; second, there is no attempt to date to empirically check the usefulness of the both level of severity and maladaptive traits (two first steps in the ICD-11 personality disorder assessment).

## **Purpose of the Study**

This study aims to enhance the reflective transition between schizoid personality disorder characteristics – treated as a clinically useful dimensional construct – and a dimensional model of personality disorders according to the ICD-11. First, we tested hypotheses about the positive correlation of trait detachment and low empathy, intimacy, and identity with the level of schizoid personality

characteristics. Then we attempted to answer whether the set of pathological traits significantly increments the assessment of the level of schizoid personality over the level of severity (level of personality psychopathology). In this way, we mimicked the diagnostic steps of the ICD-11 framework for PD assessment. We additionally tested a competitive model, in which pathological features were introduced first, and severity level indicators in a second step. It aligns with some researchers' suggestions that pathological traits may prove more important for diagnosing personality disorders (e.g., Sleep et al., 2019). Thus, we asked about the utility of dimensional approach (severity and trait domains) in assessing schizoid personality according to the guidelines included in ICD-11.

## Materials and Methods

The study group consisted of volunteers who gave informed consent to participate in the study. A total of 176 individuals aged 18–71 years ( $M = 28.3$ ,  $SD = 10.3$ ) were recruited from the general population, of which 83.5% were female, 14.8% were male, and 1.7% identified their gender as *other*. The largest percentage of participants lived in large cities with a population of over 500,000 (64.8%) and reported having a secondary or higher education degree (83.5%). The majority of participants (38.6%) reported being employed. Of all the participants, 22.2% were under the care of a psychiatrist, 25% were using pharmacotherapy to stabilize their mental functioning, and 23.9% were currently undergoing psychotherapy.

The study was conducted using a Google Forms survey that was posted on social media platforms such as Facebook and Instagram. The data collection method was a self-administered survey that each respondent completed individually. Before filling out the survey, the participants were fully informed about the study's purpose and voluntary participation. Each participant gave written consent to participate in the study. The study design allowed participants to opt-out if they felt uncomfortable. Additionally, the study description included an email address for any inquiries or uncertainties regarding the study participation, along with the possible negative consequences of the study (the organizers of the survey were prepared to offer a telephone consultation with a psychologist).

In order to determine the level of maladaptive personality traits, the Personality Inventory for ICD-11 (PiCD) by Oltmans and Widiger (2018) in the Polish adaptation by Ciecuch, Łakuta, and Strus (Ciecuch et al., 2022) was used. The questionnaire consists of 60 items that constitute the following scales (Cronbach's alpha reliability in our study): negative affect ( $\alpha = .88$ ), disinhibition ( $\alpha = .89$ ), detachment ( $\alpha = .83$ ), antagonism ( $\alpha = .86$ ), and anankastia ( $\alpha = .8$ ). The validity of the measure has been confirmed for the original version (Oltmanns & Widiger, 2018).

In order to assess the level of severity of personality disorders (level of personality pathology), The Self and Interpersonal Functioning Scale (SIFS) by



Gamache, Savard, Leclerc, and Cote (Gamache et al., 2019) in the Polish adaptation (Soroko, Ciecuch, & Gamache, in press) was used. The questionnaire consists of 24 items in the following scales (Cronbach's alpha reliability in our study): identity ( $\alpha = .75$ ), self-direction ( $\alpha = .54$ ), empathy ( $\alpha = .76$ ), and intimacy ( $\alpha = .71$ ). All subscales, except the self-direction, have acceptable Cronbach's  $\alpha$  coefficient. The SIFS was developed as the part of the operationalization for Criterion A (level of personality functioning); however is a valid and clinically useful method and has the adjustment do ICD-11 framework (Gamache et al., 2021).

To determine the level of schizoid personality disorder as a dimensional construct, the Character Styles Questionnaire-Revised (CSQ-R) (Cierpiałkowska & Pasikowski, 2004) was used. The questionnaire refers to the criteria for PDs presented in DSM-IV-R and, consequently, also DSM-5 basic model. In this study, the one subscale, the Schizoid personality, was used. It comprised 13 items that dealt with cognitive functioning patterns, affective response patterns, social functioning patterns, and impulse control patterns. The reliability of the schizoid personality scale was Cronbach's  $\alpha = .84$ , and the validity of this tool is acceptable (Cierpiałkowska & Pasikowski, 2004).

The methods of statistical analysis included: statistical description (e.g., mean, standard deviation), reliability (Cronbach's  $\alpha$ ), Pearson's and Spearman's correlation, and stepwise linear regression.

## Results

In order to describe the variables used in the study, properties such as mean, standard deviation, skewness, kurtosis were determined, and the normality of the distribution was tested using the Shapiro-Wilk W test. Most scales do not have a normal distribution that is common when researching clinical issues in a general sample (see Table 1, p. 86 for more detail).

### **The ICD-11 Components (Personality Disorders Severity and Pathological Traits) and Schizoid Personality Characteristics**

To test the hypothesis that schizoid personality as a dimensional construct is associated with higher severity of personality pathology, we used Spearman's one-tailed rho correlation. As expected, a moderate positive correlation was found between the schizoid personality dimension and detachment ( $\rho = .59$ ,  $p < .001$ ). At the same time, low positive correlations also occurred between schizoid personality and other maladaptive traits, namely dissociality ( $\rho = .25$ ,  $p < .01$ ), negative affectivity ( $\rho = .30$ ,  $p < .001$ ), and disinhibition ( $\rho = .17$ ,  $p < .05$ ). No relationship was found for anankastia ( $\rho = .14$ ,  $p > .05$ ). The hypothesis was also confirmed regarding personality pathology level dimensions, with the highest scores for intimacy ( $\rho = .54$ ,  $p < .001$ ), identity ( $\rho = .47$ ,

$p < .001$ ), empathy ( $\rho = .39, p < .001$ ), and self-direction ( $\rho = .29, p < .001$ ). These findings suggest that individuals with higher levels of schizoid personality traits tend to exhibit more severe impairments in their self and interpersonal functioning, particularly in terms of difficulties with intimacy, identity, and empathy, as well as a tendency toward detachment and other maladaptive personality traits.

**Table 1**

*Descriptive Statistics for the Variables in the Study (N = 176)*

Variable	M	SD	Min	Max	Skewness	Kurtosis	Shapiro-Wilk W	Shapiro-Wilk p
CSQ Schizoid	31.70	9.84	13.00	53.00	0.18	-0.69	.98	.01
SIFS Identity	1.91	0.81	0.00	4.00	0.18	-0.51	.99	.07
SIFS Self-direction	1.57	0.70	0.00	3.60	0.27	-0.17	.98	.04
SIFS Empathy	1.00	0.70	0.00	3.67	1.35	2.19	.89	< .001
SIFS Intimacy	1.13	0.73	0.00	3.00	0.64	-0.25	.95	< .001
PiCD Negative affectivity	39.20	9.77	15.00	60.00	-0.17	-0.49	.99	.14
PiCD Disinhibition	26.90	9.15	13.00	58.00	0.84	0.47	.95	< .001
PiCD Detachment	27.90	8.87	12.00	58.00	0.37	-0.08	.98	.02
PiCD Dissociality	23.20	7.79	12.00	53.00	1.32	1.97	.90	< .001
PiCD Anankastia	40.40	7.70	17.00	56.00	-0.33	-0.08	.99	.08

### **Level of Personality Pathology and Maladaptive Traits as Predictors of the Schizoid Personality as a Dimensional Construct**

In order to determine the usefulness of assessing the schizoid personality characteristics based on the dimensions proposed in the ICD-11 personality disorders' diagnostic model, a stepwise regression analysis was applied, where the explained variable was the level of schizoid personality (CSQ Schizoid). The predictors were a set of indicators of personality pathology in the first step (SIFS) and a set of pathological traits (PiCD) in the second step (see Table 2 and 3, p. 87). The order in which the variables were introduced reflects how personality disorders are diagnosed according to the ICD-11. The first model, in which personality pathology level dimensions are predictors, explains 36% of the variance in the schizoid personality variable, and this model is significant ( $F(4,171) = 26.10, p < .001$ ).



**Table 2**

*Stepwise Regression Analysis With Schizoid Personality Dimension as an Explained Variable (N = 176), Step 1*

<b>Model 1 (Step 1): Adjusted R<sup>2</sup> = 0.36; F(4,171) = 26.10, p &lt; .001</b>							
<b>Predictor</b>	<b>Estimate</b>	<b>SE</b>	<b>95% Conf. Int. Lower</b>	<b>95% Conf. Int. Upper</b>	<b>beta</b>	<b>t</b>	<b>p</b>
Intercept	18.96	1.69	15.63	22.29		11.24	< .001
SIFS Identity	3.99	0.90	2.22	5.76	.33	4.44	< .001
SIFS Self-direction	-1.83	1.08	-3.95	0.29	-.13	-1.70	.09
SIFS Empathy	2.03	1.02	0.02	4.04	.14	1.99	.05
SIFS Intimacy	5.25	1.01	3.25	7.25	.39	5.18	< .001

*Note:* The following assumptions checks were tested: Cook's distance ( $M = 0.01$ ,  $Md = 0.002$ ,  $SD = 0.02$ ,  $\min = 0$ ,  $\max = 0.12$ ), collinearity (VIF in every case was lower than 1.60), autocorrelations ( $DW = 2.05$ ,  $p = .74$ ; autocorrelation =  $-0.03$ ) and normality test (Shapiro-Wilk =  $.99$ ,  $p = .76$ ).

**Table 3**

*Stepwise Regression Analysis With Schizoid Personality Dimension as an Explained Variable (N = 176), Step 1 and 2.*

<b>Model 2 (Step 1 and 2): Adjusted R<sup>2</sup> = 0.54; F(9, 166) = 23.40, p &lt; .001</b>							
<b>Predictor</b>	<b>Estimate</b>	<b>SE</b>	<b>95% CI Lower</b>	<b>95% CI Upper</b>	<b>beta</b>	<b>t</b>	<b>p</b>
Intercept	-0.70	4.30	-9.19	7.78		-0.16	.87
SIFS Identity	2.50	0.99	0.55	4.44	.21	2.53	.01
SIFS Self-direction	-1.30	1.09	-3.44	0.85	-.09	-1.19	.23
SIFS Empathy	2.25	0.97	0.34	4.15	.16	2.33	.02
SIFS Intimacy	3.64	0.98	1.71	5.57	.27	3.72	< .001
PiCD Negative affectivity	0.05	0.08	-0.12	0.22	.05	0.59	.55
PiCD Disinhibition	0.07	0.09	-0.12	0.26	.07	0.75	.46
PiCD Detachment	0.44	0.07	0.30	0.58	.40	6.22	< .001
PiCD Dissociality	-0.07	0.09	-0.24	0.10	-.05	-0.77	.44
PiCD Anankastia	0.21	0.10	0.02	0.41	.17	2.15	.03

*Note:* The following assumptions checks were tested: Cook's distance ( $M = 0.01$ ,  $Md = 0.002$ ,  $SD = 0.02$ ,  $\min = 0$ ,  $\max = 0.14$ ), collinearity (VIF in every case was lower than 2.88), autocorrelations ( $DW = 2.11$ ,  $p = .43$ ; autocorrelation =  $-0.077$ ) and normality test (Shapiro-Wilk =  $.99$ ,  $p = .97$ ).

In this model, all aspects of personality, except self-direction, were significant predictors and problems in intimacy showed the most substantial predictive relationship. The second model contained the additional step of including pathological personality traits to predict the severity of schizoid personality. This model explained 53% of the variance in this variable, was statistically significant ( $F(9, 166) = 23.40, p < .001$ ), and was also significantly different from the first model ( $\Delta R^2 = 0.18; F(5, 166) = 13.60, p < .001$ ). Significant predictors in this model were disturbed intimacy, identity, empathy, detachment, and anankastia.

In an alternative solution, in which pathological features were introduced first and severity level indicators in a second step, we also obtained results showing the statistical significance of the first step and significant differences between models (Step 1: Adjusted  $R^2 = 0.44; F(5, 170) = 28.6, p < .001; \Delta R^2 = 0.10; F(4, 166) = 9.70, p < .001$ ). The set of maladaptive traits alone explained 44% of the variance in the schizoid characteristics, that is higher than the level of severity indices. Negative affectivity ( $beta = 0.27, t = 3.96, p < .001$ ) and detachment ( $beta = .59, t = 9.75, p < .001$ ) were the significant predictors of schizoid characteristics.

## Discussion

The general aim of this study was to enhance the reflective transition between schizoid personality disorder characteristics that are familiar to clinicians and a dimensional model of personality disorders according to the ICD-11 that needs to be tested in order to establish its clinical utility. Through the analyses, we examined which elements of the ICD-11 conceptualization relate to schizoid personality.

Firstly, we started by testing hypotheses about the positive correlation of detachment (isolation) and low empathy, intimacy, identity, and self-direction with the level of schizoid personality characteristics. The results showed significant correlations between scales measuring the level of personality disorder severity, level of pathological traits (except anankastia), and schizoid personality disorder treated as a dimensional construct. The correlations between negative affect, antagonism and isolation are in line with the most highlighted schizoid features (Winarick, 2020). We observed moderate positive correlations between schizoid personality and detachment and low correlations between schizoid personality and dissociation and negative affect. Isolation (detachment) is often identified as a central feature of schizoid individuals that has been linked to social withdrawal (Glover et al., 2012). Research in the so-called Big Five paradigm found that schizoid personality disorder is characterized by low extraversion, which is an opposite feature to detachment (mainly low warmth, gregariousness, assertiveness, activity, excitement-seeking, positive emotions), low openness to experience (especially feelings vs. alexithymia) and a lack of overt affiliative needs (Widiger et al., 2002; Winarick & Bornstein, 2015). Examining associations between the 6 trait domains (negative affectivity, detachment,

antagonism, disinhibition, anankastia, psychoticism) and the 10 familiar DSM-5 section II personality disorders categories, Bach and colleagues (2020), in a study similar to ours, found that schizoid personality disorder was positively related to detachment ( $r = .28$ ). Moreover, other studies suggest that schizoid individuals do not participate willingly in therapy, do not form new relationships, and are sometimes indifferent to social relationships (Triebwasser et al., 2012), preferring solitary activities (Carvalho et al., 2020). Detachment can have a constitutional (innate/biological) component, but also one that is perpetuated through experience in the form of relational patterns or attachment models. In our study, these aspects are indistinguishable from each other, and the emotional and social consequences of detachment are similar to problems with intimacy and empathy (see further below). For example, a schizoid personality disorder is linked with the under-expression of the emotional schema, namely the tendency to avoid emotional expression (Edwards et al., 2022), that contributes to lesser involvement in interpersonal relationships. Also, detachment may manifest as interpersonal avoidance motivated by fear of embarrassment or humiliation, anxiety, and feelings of inadequacy (Shedler & Westen, 2004).

In our study, the schizoid personality was positively related to negative affectivity, dissociation, and disinhibition. Similar results were found by Bach and colleagues (2020) in the aforementioned study for antagonism (compatible with dissociation, .22), but the opposite (low although significant) for negative affectivity (-.18) and insignificant for disinhibition (.06). In people with high schizoid characteristics, some degree of disinterest in others may be associated with callousness and low empathy, which may elevate scores in dissociation. Inconsistency in the associations with negative affectivity and disinhibition may relate to sample characteristics – in Bach and colleagues' (2020) study, the sample was several thousand and varied, and our sample included relatively high-functioning individuals, in whom schizoid personality may be more related to distress than to rigid functioning pattern. It may also be worth considering a continuum of manifestations of SPD, from being more preoccupied and deeper down, perhaps even desiring closeness to being cut off and distant (*unassured-submissive* and *cold-hearted*) (Gore & Pincus, 2013).

We observed significant correlations between schizoid personality and all aspects of the severity of personality dysfunction, with moderate positive correlations for problems in intimacy, empathy, and identity and low correlations for self-direction. These results are well supported in other studies. Generally, difficulties with intimacy in schizoid disorders may be associated with a tendency towards detachment (as mentioned above) that prevents the formation of close relationships (Shedler & Westen, 2004) and intensifies intimacy avoidance (Glover et al., 2012; Triebwasser et al., 2012). Avoidant attachment is also often indicated as a characteristic of schizoid personality, particularly in terms of a working model of security that is invested in the self only, not in others (West et al., 1994; Winarick & Bornstein, 2015). Avoidant attachment may also manifest as an interpersonal passivity (Carvalho et al., 2020), which, through the lack of communication of difficulties of these individuals, can be confused with an absence of problems or a lack of motivation for treatment (Thylstrup & Hesse,

2009). A diminished capacity for an empathic response might be related to difficulties with social reciprocity (Winarick & Bornstein, 2015). The literature also identifies limited empathy (or even a lack thereof) as an essential characteristic of schizoid personality disorder (e.g., Wolff 1995 cited in Smith, 2006). The positive relationship between SPD as a dimensional construct and identity disturbances was also expected from both existing empirical research and personality disorder theory. In object relations theory, Kernberg (2016) pointed to the centrality of identity disturbances in personality disorders and placed schizoid disorder in a low borderline personality level. This implies severely disturbed identity, but also primitive defense mechanisms, problems with intimacy, or even the presence of transient disruptions in reality testing. Distinguishing disturbed identity (a range of identity-related problems, from normative periods of uncertainty and discontinuity to severe difficulties causing distress or developmental delay) from more severe lack of identity (feelings of non-existence, inner emptiness, and feelings of fragmentation), Bogaerts and colleagues (2021) found significant associations between SPD and lack of identity ( $beta = .35$ ) and disturbed identity ( $beta = .17$ ), thus suggesting a strong identity pathology in this disorder. Thus, all dimensions determining the level of personality pathology (PD severity) correlated positively with the schizoid disorder as a dimensional construct. The results support the expectation that the PD severity dimension is crucial for assessing global personality functioning and can be considered an important predictor of concurrent and prospective dysfunction (Hopwood et al., 2011).

Secondly, we tested whether the set of pathological traits significantly increases the precision of the assessment of the level of schizoid personality over the level of severity (level of personality psychopathology). The results show that the ICD-11 personality disorder assessment's first step, diagnosing the severity level (intimacy, identity, and empathy were significant in this model), was meaningfully related to the schizoid dimension. The strongest predictor in this model was intimacy. Intimacy seems to be a complex aspect of interpersonal functioning, dependent on the ability to elicit empathy and identity integration. Generally, the observation that the more severe the personality impairments are, the more schizoid he or she is, seems in line with the issue of treating the severity criterion as a global (core) dysfunction present in all personality disorders (Bach et al., 2021, 2022; Morey et al., 2022). Adding the acknowledgment of pathological traits, as the detachment in our case, increases the validity of the prediction to 54% of explained variance. It is also an argument for including pathological traits in personality assessment and not avoiding this step in the routine assessment (as assessing the traits is not obligatory in PDs assessment according to the ICD-11). It will add a substantial flavor to the level of personality recognition by adding the core schizoid characteristics (e.g., Bach et al., 2022). The lack of relevance of self-direction in predicting schizoid disorder seems reasonable and is consistent with the lack of correlation between these constructs. In contrast, the disappearance of correlations between dissociality and schizoid personality, and the emergence of anankastia as a significant predictor (after no correlation between the variables treated separately), suggests a more complex reciprocal relationship between the variables under study. It is

likely that the relationships between these variables are either nonlinear or there are mediating effects that our study could not capture.

Although the diagnostic steps according to the ICD-11 framework begin with assessing the PD severity, and diagnosing pathological traits is optional, our study shows the important role of the trait aspect in properly diagnosing schizoid characteristics (especially detachment and negative affectivity). Indeed, the step-wise regression model, in which traits were introduced in the first step, could predict more (44% vs. 38%) of the explained variance of schizoid characteristics. The significant role of traits (rather than the level of personality disorder) in explaining the functioning of people with personality disorders is also emphasized by other researchers. For example, Sleep & Lynam (2022) indicate that pathological traits are well suited to capture the severity of dysfunction and carry more clinically useful information than the level of personality dysfunction. They even suggest a reverse-step solution in the AMPD DSM-5 and ICD-11 framework (Sleep et al., 2021). However, a closer look at the manifestations of detachment and intimacy impairment shows their common interpersonal features and obvious clinical coexistence. Detachment is defined by social withdrawal and avoidance of intimacy (Bach & First, 2018). It also reveals the relationship with avoidant attachment, leading to weaker intimacy (Siczek & Ciecuch, 2023). The results of our study suggest that one of the two steps (severity and pathological traits) should not be excluded because of their empirical convergence. At the same time the results point to the need to examine what psychological mechanisms underlie these similar manifestations (detachment and intimacy disturbances).

If we relate our results about the predictive matter of the two steps of ICD-11 diagnostic framework (namely, level of disturbance severity and trait domains) to the dilemma created when analyzing the relationship between criteria A and B in the DSM AMPD (high overlap, e.g., Widiger et al., 2019), our research suggests that the two aspects of personality diagnosis are not likely to be redundant but complementary (see more e.g., discussion in Sharp & Wall, 2021). The question remains, however, as to what factors beyond those proposed by the ICD-11 might provide input into the diagnosis of schizoid personality disorder.

## In Conclusion

1. Schizoid personality disorder, taken as a dimensional construct, correlates with all dimensions of PDs severity (self and interpersonal domains), as well as with detachment and, to a lesser extent, with other traits (dissociality, negative affectivity, disinhibition); for the negative affectivity, our results were not compatible with other studies.
2. When diagnosing the schizoid disorder, it is reasonable to proceed by first diagnosing PD severity (especially the level of disruptions in empathy, intimacy, and identity) and then paying attention to detachment as a maladaptive trait. This recommendation is related to both the design of the ICD-11 framework and clinical reasons. Our study did not contradict the recommendation but

also showed that from an empirical point of view, diagnosing maladaptive traits, mainly detachment and negative affectivity, in the first step also favors effective diagnosis of schizoid features.

3. Schizoid personality disorder, as a dimensional construct, is simultaneously explained by yet other factors (approximately 46%) that we do not recognize based on our study, so in further research, it is worthwhile to draw on psychological theories of schizoid personality and to look further at the clinical utility of dimensional classification systems.

## Limitations

One of the main limitations of our study is the uneven gender representation in our sample. Despite the careful selection of participants, 83.5% of those surveyed were female. Such significant variation in the gender ratio may affect the generalizability of our results to the broader population, especially the male population. Psychological traits and prevalence of mental disorders in our sample may differ between genders, which may affect the interpretation of our results. Additionally, a voluntary community sample participated in this study, so the average personality pathology could not saturate all levels. Thus, in future research, the clinical sample would be necessary. We gathered our data in an internet study where the motivation to participate could neither have been monitored in detail nor be transparent regarding their socio-economic background. However, we know that the sample was relatively young and well-educated. Moreover, we obtained low reliability in the SIFS Self-direction sub-scale, which was also visible in nonsignificant but still negative correlations with schizoid personality; thus, the analyses with this sub-scale should be treated with caution. Operationalizing the severity dimension with SIFS could also be a limitation. Although SIFS can be considered a good enough operationalization of severity in the ICD-11 framework, the fact that it was created based on the DSM-5 AMPD has the consequence that it contains only implicit reference to potential physical consequences of self-harm or harm to others. In contrast, the ICD-11 model explicitly emphasizes the risk of harm as a severity marker (e.g., Bach & Anderson, 2020). Moreover, although checked for the most important assumptions, regression analysis was used despite the not-normal distributions of a few variables (although skewness and kurtosis are acceptable), so we should treat the results as they required replication in further studies. When the clinical utility is concerned, our study speaks of a diagnosis according to ICD-11 but made with self-report tools (that are recommended but not required or default) and without deciding in which thresholds the diagnosis severity falls and which pathological features were marked as well describing the participants. Therefore, our study only somewhat resembles the diagnostic steps of the ICD-11 (*de facto* it is even “more” dimensional) but still 1) has the advantage of reflecting the steps of the diagnostic procedure according to the ICD-11 and 2) provides information about the crosswalks between categorical and dimensional approaches in conceptualizing and diagnosing personality disorders.



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