



RESEARCH ARTICLE

Turkish adaptation of the Dimensional Clinical Personality Inventory-Schizoid Personality Disorder: Validity and reliability study

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ABSTRACT

Objective: Criticisms and limitations of the categorical approach in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) are discussed. In recent years, it has been suggested that an alternative approach, such as the dimensional model, is more advantageous. The Hierarchical Taxonomy of Psychopathology (HiTOP), which offers a dimensional-based framework, is presented as a new perspective. The study aimed to adapt the Dimensional Clinical Personality Inventory-Schizoid Personality Disorder (IDCP-SZPD), which was developed according to the HiTOP perspective and assesses schizoid personality disorder with a dimensional approach, into Turkish, and to examine its validity and reliability.

Method: The Perth Alexithymia Questionnaire, Interpersonal Sensitivity Scale, Interpersonal Reactivity Index, The Interpersonal Attachment Styles Scale, Coolidge Axis II Inventory Plus Turkish Short Form, and Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R) Personality Questionnaire were used for convergent validity analyses. Convergent validity, exploratory, and confirmatory factor analyses were conducted for validity, while Cronbach's Alpha and test-retest analyses were used for reliability.

Results: The factor analysis determined that the 10th, 17th, 18th, and 23rd items should be removed from the scale, and the scale showed a five-factor structure. According to the reliability analysis, Cronbach's alpha value was found to be 0.91 for the total scale and between 0.71 and 0.91 for the subscales. It was determined that the item-total item correlations of all items on the scale were above 0.30.

Conclusion: Based on the findings, it is evident that the Turkish adaptation of the IDCP-SZPD has strong psychometric properties.

Keywords: Schizoid Personality Disorder Scale, reliability, validity, adaptation

INTRODUCTION

Schizoid personality disorder is a personality disorder that typically emerges in early adulthood and is influenced by various factors. It has a prevalence rate of approximately 3–5% in general population (1).

In a study conducted with adolescents in Turkiye, the prevalence rate was found to be 3.75% (2). According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), schizoid personality disorder (SZPD) is characterized by difficulties in maintaining social bonds, isolation,

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emotional distance, a lack of close friends beyond immediate family members, little interest in sexual intimacy, limited enjoyment of activities, highly restricted emotional expression, difficulty forming close friendships, disregard for praise and criticism, and emotional coldness and detachment (3). In the International Classification of Diseases 10 (ICD-10), SZPD is characterized by a limited capacity to express emotions and experience pleasure, social and emotional detachment, and a preference for solitary activities, introspection as well as fantasizing (4). According to the DSM-5, schizoid personality disorders are slightly more prevalent in males (1), and this pattern is consistent across multiple studies (5–9).

Some authors have suggested that loss experiences (10), inability to develop basic trust in the mother-child relationship (11), difficulties in coping with a rejecting mother, and emotional deprivation (12) play a critical role in the development of SZPD, characterized by an inability to form emotional bonds. Based on studies conducted with schizoid patients, Guntrip (13) identified some distinctive and descriptive features of schizoid personality, including introversion, withdrawal, narcissism, self-sufficiency, a sense of superiority, loss of desire, loneliness, loss of self, and regression. Individuals with SZPD tend to exhibit tendencies of social withdrawal, low interest in activities, lack of motivation, and affective indifference (14). These individuals also often do not receive consistent and reassuring feedback in their attempts to establish relationships (15). Additionally, individuals with SZPD who experience intense anxiety related to basic trust tend to distance themselves from relationships, isolate themselves, and withdraw into their inner worlds when their anxiety becomes overwhelming (16).

Since the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III), there has been significant criticism of the current diagnostic system for personality disorders (17,18). Moreover, the hierarchical diagnostic system is rejected within the framework of discussions that argue hierarchies cannot exist in the absence of etiology, according to the DSM perspective (19). However, based on the notion that personality structure remains the same regardless of clinical or non-clinical distinction, some researchers argue that both normal and abnormal conditions are etiologically related, and personality disorders are extreme variants of normal personality traits (20,21). Therefore, a categorical classification of personality disorders is deemed unsatisfactory as it fails to encompass the wide range of variations in the level of personality disorder and other related impairments (22).

When examining the literature, it can be observed that psychopathology-focused studies mainly concentrate on the categorical diagnosis system. However, in recent years, there has been an increase in studies prioritizing dimensional systems. One of these dimensional approaches is the Hierarchical Taxonomy of Psychopathology (HiTOP), which is based on empirical patterns that coexist among psychological symptoms (23). Empirical studies consistently demonstrate that psychopathology is predominantly dimensional rather than categorical. The extensive evidence supporting the dimensional and hierarchical structure of psychopathology has led to the development of the HiTOP model. An international group of researchers who have come together to study the empirical categorization of psychopathology has been investigating the HiTOP model and continuously updating its structure as new data becomes available. Therefore, HiTOP is recognized as a developing model (24). Carvalho et al. (25) developed a specific scale based on the features related to the Dimensional Clinical Personality Inventory-Schizoid Personality Disorder (IDCP-SZPD) within the HiTOP model. This scale is a 27-item, four-point Likert-type self-report scale. Validity and reliability analyses demonstrated that the scale effectively measured the characteristics of the schizoid structure.

Schizoid personality disorder is one of the least researched and poorly understood personality disorders in DSM-5 (26). It is believed that the lack of a dedicated assessment tool for measuring SZPD is one of the crucial reasons for the limited number of studies conducted. Therefore, this study aimed to carry out the Turkish adaptation of the IDCP-SZPD, a specific scale developed by Carvalho et al. (25) within the framework of the HiTOP model, to evaluate IDCP-SZPD, and to conduct validity and reliability studies.

METHOD

Participants

The participants, approximately half of whom were university students, consisted of a total of 587 individuals, with 478 (81.4%) women and 109 (18.6%) men, ranging in age from 18 to 65 (mean age: 27.14 ± 9.78). The exclusion criteria for participants were being under 18 years of age and being illiterate. Out of the total 587 participants, 287 were randomly selected for exploratory factor analysis (EFA), 300 for confirmatory factor analysis (CFA), and validity analyses were conducted. Additionally, for

convergent validity, alongside the IDCP-SZPD, 129 participants completed the following scales: Perth Alexithymia Questionnaire (PAQ), Interpersonal Sensitivity Scale (ISS), Interpersonal Reactivity Index (IRI), The Interpersonal Attachment Styles Scale (IASS), Coolidge Axis II Inventory Plus Turkish Short Form (CATI+TR-SF), and Structured Clinical Interview for DSM-III-R Personality Questionnaire Schizoid personality disorder subscale (SCID-II-PQ-SZPD). For the test-retest analysis, the scale was administered twice at three-week intervals to a group of 60 university students, consisting of 49 females (81.7%) and 11 males (18.3%), aged 18–25 (mean age: 19.07 ± 1.25).

Data Collection Tools

Demographic Information Form

This form, created by the researchers, includes questions regarding age, gender, marital status, educational status, economic status, and whether the participants have received or felt the need to receive psychological/psychiatric help.

Dimensional Clinical Personality Inventory-Schizoid Personality Disorder (IDCP-SZPD)

Developed by Carvalho et al. (25), this scale measures the characteristics of schizoid personality disorder. The scale items are evaluated using a four-point Likert-type rating, ranging from “has nothing to do with me” to “everything to do with me.” The scale consists of 27 items and 6 sub-dimensions: anhedonia (A), intimacy avoidance (IA), avoidance of close relationships (ACR), social isolation (SI), individualism (I), and interpersonal detachment (ID). Higher total scores on the scale indicate greater schizoid tendencies. Cronbach’s alpha internal consistency coefficients for the scale and its sub-dimensions range from 0.70 to 0.90.

Perth Alexithymia Questionnaire (PAQ)

Developed by Preece et al. (27) and adapted into Turkish by Bilge and Bilge (28), this questionnaire measures alexithymia. It uses a seven-point Likert-type rating and consists of 24 items and 5 subscales: negative-difficulty identifying feelings, positive-difficulty identifying feelings, negative-difficulty describing feelings, positive-difficulty describing feelings, and general-externally oriented thinking. Higher total scores on the scale indicate greater alexithymia characteristics. Cronbach’s alpha internal consistency coefficients for the scale and its sub-dimensions range from 0.85 to 0.96 (28).

Interpersonal Sensitivity Scale (ISS)

The Interpersonal Sensitivity Scale (ISS), developed by Boyce and Parker (29) to measure individuals’ awareness and sensitivity levels towards the emotions and behaviors of others, was adapted into Turkish by Doğan and Sapmaz (30). The scale items are evaluated using a five-point Likert-type rating. The scale consists of 30 items and 3 sub-dimensions: interpersonal anxiety and dependency, lack of social self-confidence, and non-assertive behaviors. The scale can also be calculated as a total score. A high score on the scale indicates high interpersonal sensitivity. The Cronbach’s alpha internal consistency coefficients for the scale and its sub-dimensions are 0.81, 0.84, 0.64, and 0.73, respectively (30).

Interpersonal Reactivity Index (IRI)

The Interpersonal Reactivity Index (IRI), developed by Davis (31) to measure both cognitive and emotional empathy, was adapted into Turkish by Engeler and Yargic (32). The scale items are evaluated using a five-point Likert scale. The scale consists of 28 items and 4 sub-dimensions: perspective-taking, empathic thinking, personal discomfort, and fantasy. The Cronbach’s alpha internal consistency coefficients for the sub-dimensions of the scale range from 0.60 to 0.73 (32).

The Interpersonal Attachment Styles Scale (IASS)

Kandemir and Ilhan (33) developed the Attachment Styles in Interpersonal Relationships Scale (ASIS) to measure individuals’ attachment styles in interpersonal relationships. The scale items are evaluated using a seven-point Likert-type rating. The scale consists of 21 items and 3 sub-dimensions: secure attachment, anxious attachment, and avoidant attachment. The Cronbach’s alpha internal consistency coefficients for the sub-dimensions of the scale are 0.80, 0.74, and 0.72, respectively.

Coolidge Axis II Inventory Plus Turkish Short Form (CATI+TR-SF)

The scale was revised according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) in 2006 (34) and was developed by Bilge (35) as a short form in the Turkish adaptation study. The short form specifically evaluates personality disorders. The scale consists of 78 items and 10 sub-dimensions, aiming to measure the personality disorders in DSM-5. It is a four-point Likert type scale. The subscales include paranoid personality disorder (PD), schizotypal PD, schizoid PD, antisocial personality disorder (APD), borderline PD, histrionic PD, narcissistic PD, obsessive-compulsive PD, dependent PD, and avoidant PD. The Cronbach’s alpha internal consistency coefficients for the subscales range from 0.71 to 0.82 (35).

Structured Clinical Interview for DSM-III-R Personality Questionnaire (SCID-II-PQ)

The SCID-II-PQ is frequently used to determine the presence of specific symptoms of personality disorder. It was structured in accordance with the DSM-III-R Axis-II personality disorders diagnostic classification criteria. The Turkish translation of the SCID-II-PQ was done by Sorias et al. (36). It is a 120-item self-report scale measuring 12 personality disorders. The reliability of the SCID-II-PQ was found to be high (37). In this study, only the schizoid PD items of the SCID-II-PQ were used.

Translation Procedure

To carry out the Turkish adaptation of the IDCP-SZPD, permission and information about the scale were obtained from Lucas Carvalho, the developer of the original form of the scale, on 17.05.2022. The scale was then independently translated from Portuguese into Turkish by two sworn translators. After analyzing the translations, the statements that were deemed to best represent the original items were selected. The Turkish form obtained through this process was back-translated by a native Portuguese translator and compared with the original text. The translation of the scale was finalized after sharing the translations with Lucas Carvalho and receiving his feedback.

Procedure

Ethical approval for the research was obtained from the Istanbul Sabahattin Zaim University Ethics Committee (date 28.10.2022, number 2022/09), and the data collection took place between 5–26 December 2022. Convenience sampling and the snowball method were used as sampling methods based on suitability and accessibility. Data were collected both face-to-face and online. Two different Google forms were prepared, one containing only the IDCP-SZPD scale and the other containing both the IDCP-SZPD and the scales used for convergent validity. The Google Forms link was shared with students, academics, and other members of the researchers' circle of friends and colleagues. Participants were encouraged to share the form with their own networks. Only the test-retest was conducted using a paper-and-pencil test, delivered in person, with a group of university students. Informed consent was obtained from all participants. It took approximately 15–20 minutes to complete the scales.

Data Analysis

Descriptive statistics such as mean, standard deviation, and frequency were used for data analysis. Exploratory Factor Analysis (EFA) was conducted

using the principal components method and varimax rotation method to test the construct validity of the Turkish form of the IDCP-SZPD. Confirmatory factor analysis was performed as a second step for construct validity. In this context, the ratio of chi-square value to degrees of freedom (χ^2/df), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), Incremental Fit Index (IFI), and Root Mean Square Error of Approximation (RMSEA) values were used to test the suitability of the obtained data to the hypothetical model. The fit indices determined as a result of CFA are important. Among these indices, χ^2 and χ^2/df values below three are considered excellent and below five is considered acceptable. It is stated that other indices such as GFI, CFI, TLI, and IFI above 0.90 are considered acceptable values. Additionally, RMSEA should be below 0.08 (38). Convergent validity and test-retest reliability were analyzed using Pearson product-moment correlation coefficient analysis. Within the scope of reliability analyses, Cronbach's alpha values were calculated for internal consistency. Statistical analyses were conducted using Statistical Package for the Social Sciences (SPSS) v25.0 and Analysis of Moment Structures (AMOS) v22.0 programs.

RESULTS

The participants of the study consisted of 209 (35.6%) single individuals, 369 (62.9%) married individuals, 8 (1.4%) separated individuals, and 1 (0.2%) widowed individual. Among the participants, 5 (0.9%) were primary-secondary school graduates, 51 (8.7%) were high school graduates, 255 (43.4%) were university students, 183 (31.2%) were university graduates, and 93 (15.8%) were postgraduate students. In addition, 75 people (12.8%) reported having low income, 476 people (81.1%) reported having medium income, and 36 people (6.1%) reported having a high income.

Validity Analysis Findings

Exploratory Factor Analysis Results

The EFA conducted with a total of 287 participants (255 females (88.9%) and 32 males (11.1%)) between the ages of 18–55 (25.14 ± 7.85) initially showed a six-factor structure for the scale. However, two items (10 and 23; item 10 is included in the interpersonal detachment subscale, and item 23 is included in the anhedonia subscale) were excluded from the analysis because their factor loadings were below 0.40. Additionally, two items (17 and 18; both items are included in the individualism subscale) were excluded because they loaded on a factor other than

Table 1: IDCP-SZPD EFA factors, item loadings, eigenvalues, variance values, and item-total correlations

Items	Item total correlations	F 1	F 2	F 3	F 4	F5
Item 9	0.69	0.65				
Item 11	0.77	0.76				
Item 12	0.77	0.76				
Item 13	0.69	0.70				
Item 14	0.81	0.70				
Item 15	0.69	0.53				
Item 22	0.66		0.76			
Item 24	0.67		0.74			
Item 25	0.71		0.74			
Item 26	0.65		0.70			
Item 27	0.60		0.73			
Item 1	0.60			0.77		
Item 2	0.58			0.70		
Item 3	0.52			0.71		
Item 4	0.61			0.73		
Item 5	0.48				0.52	
Item 6	0.58				0.81	
Item 7	0.62				0.69	
Item 8	0.62				0.82	
Item 16	0.53					0.72
Item 19	0.68					0.84
Item 20	0.49					0.67
Item 21	0.32					0.58
Eigenvalue		3.87	3.57	2.80	2.67	2.30
Variance (%)		16.84	15.54	12.16	11.61	10.00

IDCP-SZPD: The Dimensional Clinical Personality Inventory-Schizoid Personality Disorder.

their intended factor. In the second EFA with varimax rotation, a five-factor structure emerged where items in two factors were grouped under a single factor, unlike the original scale. Within the scope of this analysis, the Kaiser-Meyer-Olkin Sampling Compatibility Test (KMO) value was found to be 0.91, and Bartlett's Test of Sphericity showed $\chi^2 = 3497.73$ ($p < 0.001$). The total variance explained by all factors was found to be 66.16%, and the factor loadings of the items ranged from 0.53 to 0.84 (Table 1).

Confirmatory Factor Analysis Results

In terms of construct validity, CFA was performed using AMOS 22 software with a total of 300 datasets, consisting of 223 females (74.3%) and 77 males (25.7%), aged between 18 and 65 (29.06 ± 11.00). The results of the first-level and five-factor CFA model indicated that the IDCP-SZPD was structurally valid. Standardized regression coefficients were calculated

above 0.70 for all items except item 20 (0.51). The chi-square/degree of freedom, which is one of the goodness-of-fit indices of CFA, was found to be 2.01. Therefore, since the χ^2/sd ratio was less than 3, it was determined that the model had an excellent fit value. Among the other fit values, the CFI was 0.92, the TLI was 0.91, the IFI was 0.92, the GFI was 0.89, and finally, the RMSEA value of the model was 0.058. Considering these values, it can be concluded that the five-factor structure of the scale provided a good fit (Fig. 1).

Convergent Validity Findings

For the convergent validity of the IDCP-SZPD and its subscales, statistically significant correlation coefficients were found as a result of the application to 129 individuals. The PAQ showed positive correlations with ACR ($r = 0.43, p < 0.01$), SI ($r = 0.35, p < 0.01$), ID ($r = 0.45, p < 0.01$), I ($r = 0.37, p < 0.01$), A ($r = 0.50, p < 0.01$), and SZPD-Total ($r = 0.57, p < 0.01$), respectively. ISS-Total was not

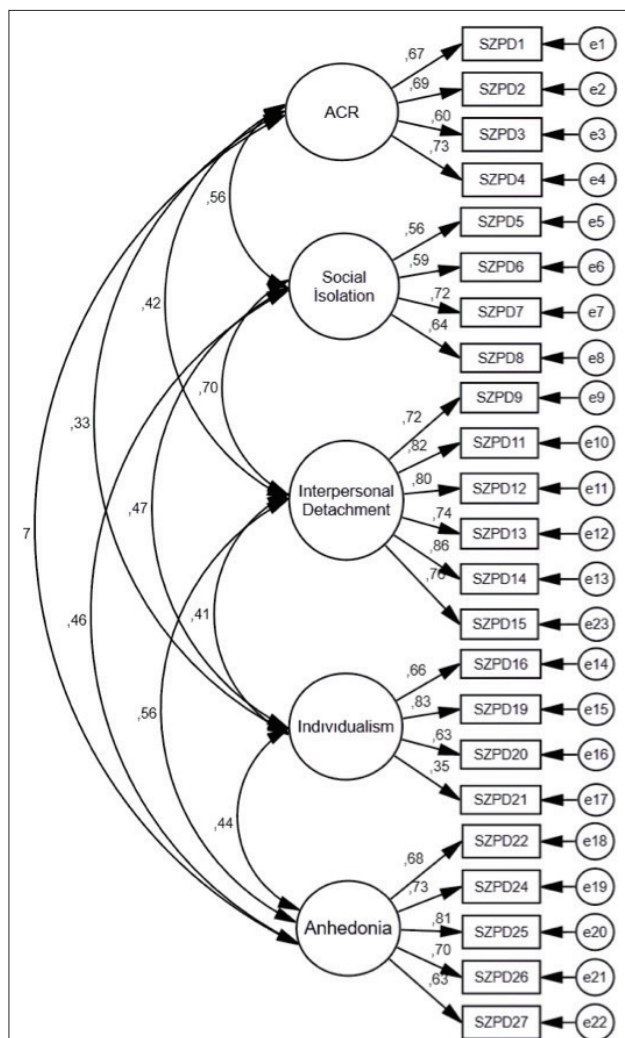


Figure 1. IDCP-SZPD level 1 confirmatory factor analysis results.

IDCP-SZPD: The Dimensional Clinical Personality Inventory-Schizoid Personality Disorder; SZPD: Schizoid Personality Disorder, ACR: Avoidance of Close Relationships.

correlated with SI and I, while it weakly and moderately positively correlated with ACR (0.21, $p < 0.01$), ID (0.30, $p < 0.01$), A (0.39, $p < 0.01$), and SZPD-Total (0.46, $p < 0.01$). A negative and weak correlation was found between IRI-Perspective taking and only I ($r = -0.21$, $p < 0.01$), but not with the other sub-dimensions. There was no correlation between IRI-Empathic thinking and SZPD-Total and its subscales. Weak positive correlations were found between IRI-Personal discomfort and ID ($r = 0.22$, $p < 0.01$), A ($r = 0.23$, $p < 0.01$), and SZPD-Total ($r = 0.28$, $p < 0.01$), and weak negative correlations were found between IRI-Fantasy and SI ($r = -0.22$, $p < 0.01$). IASS-Secure was not correlated only with I, but it showed negative correlations with ACR ($r = -0.28$, $p < 0.01$), SI ($r = -0.24$, $p < 0.01$), ID ($r = -0.46$, $p < 0.01$), A ($r = -0.31$, $p < 0.01$), and SZPD-Total ($r = -0.42$, $p < 0.01$). No correlation was

found between IASS-Anxious and SZPD-Total and its subscales. IASS-Avoidant showed weak and moderate positive correlations with ACR ($r = 0.33$, $p < 0.01$), SI ($r = 0.40$, $p < 0.01$), ID ($r = 0.43$, $p < 0.01$), I ($r = 0.37$, $p < 0.01$), A ($r = 0.31$, $p < 0.01$), and SZPD-Total ($r = 0.50$, $p < 0.01$), respectively. CATI+TR-SF-Schizoid PD showed weak and moderate positive correlations with ACR ($r = 0.26$, $p < 0.01$), SI ($r = 0.45$, $p < 0.01$), ID ($r = 0.58$, $p < 0.01$), I ($r = 0.26$, $p < 0.01$), A ($r = 0.50$, $p < 0.01$), and SZPD-Total ($r = 0.59$, $p < 0.01$), respectively. Finally, weak and moderate positive correlations were found between SCID-II-PQ-SZPD and ACR ($r = 0.47$, $p < 0.01$), SI ($r = 0.41$, $p < 0.01$), ID ($r = 0.43$, $p < 0.01$), I ($r = 0.30$, $p < 0.01$), A ($r = 0.44$, $p < 0.01$), and SZPD-Total ($r = 0.58$, $p < 0.01$), respectively (Table 2).

Reliability Analysis Findings

In terms of the reliability analysis, it was determined that the internal consistency Cronbach's α values of the total and subscale scores of the IDCP-SZPD were above 0.70 and statistically significant. The Cronbach's α values, mean, and standard deviation scores of the IDCP-SZPD are presented in Table 3. It was also found that the item-total correlations ranged between 0.32 and 0.81 (Table 3).

The Pearson correlation results for the test-retest reliability analysis ranged from 0.58 to 0.70, and all correlation values were found to be statistically significant (Table 4).

DISCUSSION

The study aims to adapt the Dimensional Clinical Personality Inventory-Schizoid Personality Disorder (IDCP-SZPD) based on the HiTOP model into Turkish and examine the psychometric properties of the scale in the Turkish sample.

In the reliability analyses conducted for the total and subscales of the IDCP-SZPD, Cronbach's alpha reliability coefficients were found to range between 0.71 and 0.91. In the original study, Cronbach's alpha reliability coefficients of the scale were determined to be between 0.70 and 0.89. All of the coefficients obtained in our study were above 0.70 and yielded similar results to the original scale. Within the scope of reliability analyses, it was determined that the item-total correlation coefficients of the items ranged from 0.31 to 0.82. The test-retest study was carried out by administering the IDCP-SZPD twice to a group of participants consisting of university students at three-week intervals. It was found that the correlations of the subscales between both applications were significant, and the lowest correlation value was 0.45.

Table 2: Convergent validity correlation coefficients of IDCP-SZPD and its subscales

P=129	Avoidance of close relationships	Social isolation	Interpersonal detachment	Individualism	Anhedonia	IDCP-SZPD-total
PAQ-Total	0.43**	0.35**	0.45**	0.37**	0.50**	0.57**
ISS-Total	0.21*	0.15	0.30**	0.15	0.39**	0.46**
IRI-Perspective Taking	-0.06	-0.14	-0.01	-0.22*	0.02	-0.10
IRI-Empathic Thinking	-0.10	-0.13	-0.15	-0.03	-0.05	-0.10
IRI- Personal Discomfort	0.16	0.07	0.22*	0.00	0.28**	0.23**
IRI-Fantasy	0.00	-0.22*	-0.00	0.17	-0.05	-0.02
IASS-Secure	-0.28**	-0.24**	-0.46**	-0.14	-0.31**	-0.42**
IASS-Anxious	0.11	-0.12	-0.01	-0.01	0.12	0.03
IASS-Avoidant	0.33**	0.40**	0.43**	0.37**	0.31**	0.50**
CATI+TR-SF-Paranoid PD	0.26**	0.12	0.22**	0.30**	0.35**	0.34**
CATI+TR-SF-Schizotypal PD	0.29**	0.29**	0.39**	0.31**	0.31**	0.45**
CATI+TR-SF-Schizoid PD	0.26**	0.45**	0.58**	0.26**	0.50**	0.59**
CATI+TR-SF-Antisocial PD	0.19**	0.20**	0.18**	0.29**	0.14	0.26**
CATI+TR-SF-Borderline PD	0.27**	0.06	0.22**	0.27**	0.33**	0.33**
CATI+TR-SF-Histrionic PD	0.13	-0.06	0.01	0.24**	0.12	0.11
CATI+TR-SF-Narcissistic PD	0.20*	-0.01	0.05	0.29**	0.22*	0.20*
CATI+TR-SF-Obsessive Compulsive PD	0.24**	0.11	0.23**	0.35**	0.44**	0.39**
CATI+TR-SF-Avoidant PD	0.23**	0.13	0.38**	0.24**	0.41**	0.40**
CATI+TR-SF-Dependent PD	0.29**	0.13	0.30**	0.05	0.33**	0.33**
SCID-II-PQ-SZPD	0.47**	0.41**	0.43**	0.30**	0.44**	0.58**

**: p<0.01; *: p<0.05; PAQ: Perth Alexithymia Questionnaire; ISS: Interpersonal Sensitivity Scale; IRI: Interpersonal Reactivity Index; IASS: Interpersonal Attachment Styles Scale; CATI+TR-SF: Coolidge Axis II Inventory Plus Turkish Short Form; PD: Personality Disorder; SCID-II-PQ-SZPD: Structured Clinical Interview for DSM-III-R Personality Questionnaire-Schizoid Personality Disorder Subscale; IDCP-SZPD: The Dimensional Clinical Personality Inventory-Schizoid Personality Disorder.

Table 3: Mean, standard deviation scores, and Cronbach’s Alpha internal consistency coefficients of IDCP-SZPD

	Total Sample (587)		Female (478)		Male (109)		α
	M	SD	M	SD	M	SD	
IDCP-SZPD-Avoidance of Close Relationships	6.77	2.56	6.66	2.54	7.26	2.63	0.78
IDCP-SZPD-Social Isolation	6.53	2.36	6.44	2.39	6.96	2.17	0.77
IDCP-SZPD-Interpersonal Detachment	9.06	3.75	8.91	3.75	9.73	3.66	0.91
IDCP-SZPD-Individualism	9.35	2.71	9.36	2.73	9.3	2.65	0.71
IDCP-SZPD-Anhedonia	8.82	3.47	8.62	3.47	9.7	3.35	0.85
IDCP-SZPD-Total	40.53	10.93	39.98	11.01	42.95	10.3	0.91

IDCP-SZPD: The Dimensional Clinical Personality Inventory-Schizoid Personality Disorder.

Buyukozturk (39) states that Cronbach’s alpha values should be above 0.70 for the reliability analysis of a scale, and if the item-total correlations are 0.30 and higher, the items discriminate well. In the original scale study, analyses regarding test-retest findings and item-total correlations were not conducted. However, considering the findings obtained as a result of the analyses, it was observed that the IDCP-SZPD is a reliable measurement tool.

As a result of the EFA conducted within the scope of construct validity, it was found that the factor loadings of two items (10 and 23) were below 0.40, and two items (17 and 18) were loaded overlappingly on a factor other than their own factors. These items were excluded from the analysis, and the analysis was repeated with varimax rotation. In the second EFA, it was found that the items in the “avoidance of closeness” sub-dimension in the original scale were

Table 4: Mean, standard deviation, and test-retest correlation coefficients of IDCP-SZPD total and subscales in test-retest application

	T1 (P=58)		T2 (P=58)		r
	M	SD	M	SD	
IDCP-SZPD-Avoidance of Close Relationships	7.19	2.66	6.97	2.98	0.59*
IDCP-SZPD-Social Isolation	6.31	2.23	5.84	2.23	0.45*
IDCP-SZPD-Interpersonal Detachment	8.67	4.14	8.66	3.72	0.60*
IDCP-SZPD-Individualism	9.67	2.64	9.91	3.30	0.62*
IDCP-SZPD-Anhedonia	8.36	3.40	8.79	3.60	0.70*
IDCP-SZPD-Total	40.21	10.03	40.17	11.62	0.58*

IDCP-SZPD: The Dimensional Clinical Personality Inventory-Schizoid Personality Disorder; T1: First application T2: After 3 Weeks; *: p<0.01.

gathered under the “interpersonal disconnection” sub-dimension. Therefore, the IDCP-SZPD exhibited different factor structures compared to the original scale. For this reason, the items in the “avoidance of closeness” and “interpersonal disconnection” sub-dimensions were combined under the “interpersonal disconnection” sub-dimension. It was found that the factor loadings of the items ranged from 0.53 to 0.84, and the total variance explained by all factors was 66.16%. The first factor, “interpersonal detachment,” explained 37.84% of the variance, the second factor, “anhedonia,” explained 8.68% of the variance, the third factor, “avoidance of close relationships,” explained 7.55% of the variance, the fourth factor, “social isolation,” explained 7.10% of the variance, and the fifth factor, “individualism,” explained 4.99% of the variance. According to EFA, four items were eliminated, and it was finalized as a 23-item scale, unlike the original scale. Within the scope of construct validity, CFA was conducted to determine the level of fit indices of the structure obtained from EFA. Since four subscales were exactly the same as the original scale, and only two subscales were grouped under one subscale, CFA was constructed and tested according to the structure obtained from EFA. According to the results of the analysis, it was found that the five-factor structure obtained without any modification was consistent with the structure of the original scale, except that two factors were grouped under one factor. The results related to RMSEA, IFI, TLI, GFI, CFI, and χ^2/df had good fit values. According to Tabachnick and Fidell (38), the acceptable goodness fit index should be below 5 for χ^2/df ranges, above 0.90 for GFI, CFI, TLI, and IFI, and below 0.08 for RMSEA.

Low, medium, and high correlation values were obtained in the analyses conducted within the scope of convergent validity analyses of the IDCP-SZPD and its subscales. According to these findings, it was determined that the PAQ showed statistically

significant, moderate, and high-level positive correlations with the IDCP-SZPD and all its subscales. These findings were found to be consistent with the studies in the literature (40,41) in which positive correlations were found between alexithymia and IDCP-SZPD. It was found that the secure attachment subscale of the IASS showed a moderate negative correlation, the avoidant attachment subscale showed a moderate positive correlation, and the anxious attachment subscale showed no correlation. Considering that individuals with schizoid personality tendency exhibit a pattern in which they try to meet their own need for trust by exhibiting avoidant behaviors instead of turning to another person to meet their attachment needs (42), and therefore do not show secure attachment and enter into a relationship in an avoidant manner, it was determined that the correlation values obtained overlap with the attachment pattern of individuals with SZPD. Finally, statistically significant medium and high-level positive correlations were found between IDCP-SZPD-Total and subscales, specifically the SZPD sub-dimension, and all other PDs (with higher correlations observed with cluster A PDs) of CATI+TR-SF, as well as the SZPD sub-dimension of SCID II-PQ. In the original scale study, two different personality disorder scales, namely The Personality Inventory Disorder for DSM-5 (PID-5) and The Five-Factor Model Personality Disorder scales (FFM-PD scales) were used, and similar low, medium, and high positive correlations were found, consistent with the results of our study. Therefore, it was observed that all validity analyses of the Turkish adaptation of the IDCP-SZPD were at the expected levels and were compatible with the studies in the literature.

Although schizoid personality disorder has been conceptualized in various ways to date, it is observed that distinctive features such as isolation, detachment, and withdrawal are included in different theories and show consistency (43). Carvalho et al. (25) developed

the IDCP-SZPD based on the HiTOP perspective, which supports this consistent structure and reduces the limitations of the categorical classification of DSM 5 (44). Considering that the IDCP-SZPD is a scale that will contribute to the Turkish literature, this adaptation study was carried out, and it was found that the scale showed strong psychometric properties, albeit with some differentiation.

One of the limitations of our study is that approximately half of the sample consisted of university students, and the majority of them were women. However, as stated in the introduction, SZPD is a disorder mostly seen in the male gender (5–9). Since the participants were reached on a voluntary basis, more female participants were included. It may be useful to ensure gender equality in future studies. Increasing the sample size, ensuring equal gender distribution, and expanding the age range are thought to increase the generalizability of the scale. Another limitation of the study is that diagnosed individuals were not included. Conducting comparative studies with a diagnosed group and the control group may provide more reliable data on the discrimination level of the scale.

CONCLUSION

Personality disorders are increasingly prevalent worldwide and represent a significant cost to societies. Low-cost measurement tools that can contribute to diagnostic accuracy and differentiate personality disorders hold promise due to their comorbidity with other psychiatric disorders. The IDCP-SZPD is important as a measurement instrument that can aid in confirming the diagnosis of SZPD. Furthermore, the IDCP-SZPD stands out because it was developed from an alternative perspective to the categorical assessment of DSM. The findings of our study demonstrate that the Turkish adaptation of the IDCP-SZPD is valid and reliable. In this context, it was found that the factor structure of the scale was validated in Turkish culture and exhibited strong psychometric properties. Therefore, it can be concluded that the IDCP-SZPD is a valid and reliable scale for determining Schizoid PD and its sub-dimensions. It is anticipated that the IDCP-SZPD will be utilized in studies specifically focused on schizoid personality disorder, in addition to contributing to the diagnosis of SZPD. Finally, it can be stated that the IDCP-SZPD and similar scales will be useful in increasing the number of studies in the field of personality disorders, which currently have a limited amount of research conducted in our country.

Contribution Categories		Author Initials
Category 1	Concept/Design	Y.B., R.Y.
	Literature review	Y.B., R.Y.
	Data analysis/Interpretation	Y.B.
Category 2	Drafting manuscript	Y.B., R.Y.
	Critical revision of manuscript	Y.B., R.Y.
Category 3	Final approval and accountability	Y.B.

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REFERENCES

1. American Psychiatric Association (APA). Personality Disorders: In: First M, Ward M, editors. Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Fifth ed., Washington, DC: American Psychiatric Publishing, 2013, 645-684.
2. Bilge Y, Bilge Yu. Revision study of Psychological Disorders Inventory for Adolescents (PDIA)-II: Personality disorders form and prevalence of personality disorders. *J Clin Psy* 2019; 22:206-218. [Turkish] [\[CrossRef\]](#)
3. American Psychiatric Association (APA). Diagnostic and Statistical Manual of Mental Disorders (DSM-5). Fifth ed. Koroglu E, translation editor. Ankara: Hekimler Yayin Birliđi, 2013, 327-330. [Turkish]
4. World Health Organization. International Statistical Classification of Diseases and Related Health Problems 10th Revision Geneva. <https://icd.who.int/browse10/2019/en#/F60.1>. Accessed December 13, 2022.
5. Klonsky ED, Jane JS, Turkheimer E, Oltmanns TF. Gender role and personality disorders. *J Pers Disord* 2002; 16:464-476.
6. Samuels J, Eaton WW, Bienvenu OJ 3rd, Brown CH, Costa PT Jr, Nestadt G. Prevalence and correlates of personality disorders in a community sample. *Br J Psychiatry* 2002; 180:536-542. [\[CrossRef\]](#)
7. Paris J. Gender differences in personality traits and disorders. *Curr Psychiatry Rep* 2004; 6:71-74. [\[CrossRef\]](#)
8. Esterberg ML, Goulding SM, Walker EF. Cluster a personality disorders: Schizotypal, schizoid and paranoid personality disorders in childhood and adolescence. *J Psychopathol Behav Assess* 2010; 32:515-528. [\[CrossRef\]](#)
9. Furnham A, Trickey G. Sex differences in the dark side traits. *Pers Individ Differ* 2011; 50:517-522. [\[CrossRef\]](#)
10. Mahler MS, Pine F, Bergman A. The Psychological Birth of the Human Infant: Symbiosis and individuation. First ed., New York: Basic Books, 1975, 3-4.

11. Erikson EH, Erikson JM. The life cycle completed (Extended version). First ed., New York: W W Norton & Company, 1998, 7.
12. Guntrip H. A study of fairbairn's theory of schizoid reactions. In: Kets De Vries MFR, Perzow S, editors. Handbook of Character Studies: Psychoanalytic Explorations. First ed., Madison, CT: International Universities Press, 1991, 407-436.
13. Guntrip H. Schizoid Phenomena, Object Relations and the Self. First ed., New York: Aronson, 1969, 41-48.
14. Martens WH. Schizoid personality disorder linked to unbearable and inescapable loneliness. Eur J Psychiatry 2010; 24:38-45.
15. Katz J. Schizoid personality disorder. In: Benveniste M, translation editor. A Therapist Guide to the Personality Disorders: The Masterson Approach. First ed., Istanbul: Psikoterapi Enstitüsü Yayınları, 2012, 139-171. [Turkish]
16. McWilliams N. Psychoanalytic Diagnosis: Understanding Personality Structure in the Clinical Process. Kalem E, translation editor. Sixth ed., Istanbul: Istanbul Bilgi Üniversitesi Yayınları, 2017, 130-134. [Turkish]
17. Clark LA. Assessment and diagnosis of personality disorder: Perennial issues and an emerging reconceptualization. Annu Rev Psychol 2007; 58:227-257. [CrossRef]
18. Widiger TA, Mullins-Sweatt SN. Clinical utility of a dimensional model of personality disorder. Prof Psychol Res Pr 2010; 41:488-494. [CrossRef]
19. Ghaemi SN. After the failure of DSM: Clinical research on psychiatric diagnosis. World Psych 2018; 17:301-302. [CrossRef]
20. Markon K, Krueger R, Watson D. Delineating the structure of normal and abnormal personality: An integrative hierarchical approach. J Pers Soc Psychol 2005; 88:139-157. [CrossRef]
21. Widiger TA, Trull TJ. Plate tectonics in the classification of personality disorder: shifting to a dimensional model. Am Psychol 2007; 62:71-83. [CrossRef]
22. Crawford MJ, Koldobsky N, Mulder R, Tyrer P. Classifying personality disorder according to severity. J Pers Disord 2011; 25:321-330. [CrossRef]
23. Conway CC, Forbes MK, Forbush KT, Fried EI, Hallquist MN, Kotov R, et al. A hierarchical taxonomy of psychopathology can transform mental health research. Perspect Psychol Sci 2019; 14:419-436. [CrossRef]
24. Krueger RF, Kotov R, Watson D, Forbes MK, Eaton NR, Ruggero CJ, et al. Progress in achieving quantitative classification of psychopathology. World Psych 2018; 17:282-293.
25. Carvalho LDF, Salvador AP, Gonçalves AP. Development and preliminary psychometric evaluation of the dimensional clinical personality inventory-Schizoid Personality Disorder Scale. Avaliação Psicológica 2020; 19:289-297. [CrossRef]
26. Hummelen B, Pedersen G, Wilberg T, Karterud S. Poor validity of the DSM-IV schizoid personality disorder construct as a diagnostic category. J Pers Disord 2015; 29:334-346. [CrossRef]
27. Preece D, Becerra R, Robinson K, Dandy J, Allan A. The psychometric assessment of alexithymia: Development and validation of the Perth Alexithymia Questionnaire. Pers Indiv Differ 2018; 132:32-44. [CrossRef]
28. Bilge Y, Bilge Yu. The measurement of Attention-Appraisal Model of Alexithymia: Psychometric properties of the Perth Alexithymia Questionnaire in Turkish. Anadolu Psikiyatri Derg 2020; 21(Suppl 2):71-79. [Turkish] [CrossRef]
29. Boyce P, Parker G. Development of a scale to measure interpersonal sensitivity. Aust N Z J Psychiatry 1989; 23:341-351. [CrossRef]
30. Dogan T, Sapmaz S. Psychometric analysis of the Interpersonal Sensitivity Measure (IPSM) among Turkish undergraduate students. J Theor Ed Sci 2012; 5:145-155. [Turkish]
31. Davis MH. A Multidimensional approach to individual differences in empathy. JSAS: Catal Sel Doc Psychol 1980; 10:85-104.
32. Engeler A, Yargic LI. Interpersonal reactivity index: measurement of empathy multidimensionally. Yeni Symp 2007; 45:119-127. [Turkish]
33. Kandemir M, Ilhan T. Attachment styles scale in interpersonal relationships: A validity and reliability study. Avrasya Positive Psychology Congress, 2017; 174-175. [Turkish]
34. Coolidge FL. The Coolidge Axis II Inventory Plus Revised: Manual. Colorado Springs: Coolidge FL, 2006.
35. Bilge Y. A brief inventory for DSM-5 personality disorders: The development of Coolidge Axis II Inventory Plus Turkish-short form. Anadolu Psikiyatri Derg 2018; 19:14-21. [Turkish]
36. Sorias S, Saygılı R, Elbi H. Turkish version of DSM-III-R structured clinical interview: SCID-II personality disorders form. İzmir: Ege Üniversitesi Basımevi, 1990. [Turkish]
37. Coskunol H, Bagdiken I, Sorias S, Saygılı R. The reliability of the SCID-II (Turkish version) interview in personality disorders. Turk Psikoloji Derg 1994; 9:26-29. [Turkish]
38. Tabachnick BG, Fidell LS. The use of multivariate statistics. Baloglu M, translation editor. Sixth ed., Ankara: Nobel Akademik Yayıncılık, 2015, 688-690. [Turkish]
39. Buyukozturk S. Manual of data analysis for social sciences. Ankara: Pegem Yayıncılık, 2004, 182-186. [Turkish]
40. Coolidge FL, Estey AJ, Segal DL, Marle PD. Are alexithymia and schizoid personality disorder synonymous diagnoses? Compr Psychiatry 2013; 54:141-148. [CrossRef]
41. De Rick A, Vanheule S. Alexithymia and DSM-IV personality disorder traits in alcoholic inpatients: A study of the relation between both constructs. Pers Indiv Differ 2007; 43:119-129.
42. Livesley WJ. A systematic approach to the delineation of personality disorders. Am J Psychiatry 1987; 144:772-777.
43. Winarick DJ. Schizoid Personality Disorder. In: Bernardo JC, Christopher S, editors. The Wiley Encyclopedia of Personality and Individual Differences: Clinical, Applied, and Cross-Cultural Research. New York: John Wiley & Sons, 2020, 181-185. [CrossRef]
44. Kotov R, Krueger RF, Watson D, Achenbach TM, Althoff RR, Bagby RM, et al. The Hierarchical Taxonomy of Psychopathology (HiTOP): A dimensional alternative to traditional nosologies. J Abnorm Psychol 2017; 126:454-477.