

Research Article

Dimensional personality traits and their associations with body image and gender dysphoria among transgender individuals: A cross-sectional analysis

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Abstract

Purpose: This study examined personality traits in a sample of transgender individuals using a dimensional, self-report approach and explored associations with body image and potential gender differences.

Methods: This retrospective cross-sectional analysis was performed on data collected in Austria between 2022 and 2025. The sample comprised 110 individuals (64 trans masculine, 46 trans feminine; aged 18–40 years) undergoing clinical psychological assessment for gender-affirming hormone therapy. Gender dysphoria, personality dimensions, and body image were assessed. Personality dimensions were compared to normative values using Wilcoxon tests. Associations were examined using Spearman correlations, and differences between trans masculine and trans feminine individuals using independent-samples t-tests.

Results: Compared to normative data, higher levels of internalizing, avoidant, and schizoid-related traits and lower levels of externalizing and antisocial traits were observed. No evidence for distinct personality subtypes emerged beyond differences in severity.

Contrary to prior literature, borderline-related traits did not differ from normative levels. Body image dissatisfaction was strongly associated with the most prominent personality dimensions but was unrelated to the extent of gender dysphoria. No gender differences were observed in personality or body image.

Conclusion: These findings challenge assumptions of elevated borderline-related pathology in transgender populations and highlight the relevance of internalizing processes and body image in psychological well-being. Dimensional, non-pathologizing approaches may improve assessment practices and inform tailored clinical support.

Keywords: Mental health; Personality disorders; Personality traits; Psychological profiles; Transgender

Introduction

The recognition and understanding of transgender and gender-diverse identities have evolved substantially in recent decades. This is reflected in diagnostic changes in the ICD-11, which replaced earlier pathologizing terms with “gender incongruence” and moved it out of mental disorders into sexual health [1-3]. This shift reflects growing consensus that gender diversity is not a mental disorder and that pathologization contributes to stigma and barriers to care [4]. Despite this progress, transgender individuals continue to experience significant disparities in mental health and healthcare access. A substantial body of research documents higher rates of mental health challenges among transgender individuals compared to cisgender populations, including depression, anxiety, suicidality, and self-harm [5-11]. Importantly, these disparities are widely understood as consequences of minority stress – such as stigma, discrimination, and internalized transphobia – rather than inherent aspects of transgender identity [12-20]. These stressors may contribute to emotional

distress, interpersonal sensitivity, and coping strategies that can resemble indicators of personality pathology [21], underscoring the importance of context-sensitive assessment. Nevertheless, research on personality disorder diagnoses among transgender populations remains methodologically heterogeneous. Personality disorders are typically conceptualized as enduring patterns of traits associated with difficulties in self-functioning and interpersonal relationships [22]. While some studies report elevated prevalence rates among transgender individuals [7] – particularly for Borderline Personality Disorder (BPD) [7,23-27] – these findings have been questioned due to potential diagnostic bias [25] and overlapping behavioral presentations [28-30]. Mistrust of healthcare providers or emotional distress may be misinterpreted as symptoms of personality pathology, particularly BPD [28,30]. Likewise, body image disturbances in BPD often reflect fluctuating self-evaluation, whereas body dissatisfaction among transgender individuals is typically linked to incongruence

between gender identity and physical characteristics [21-35]. Contemporary research increasingly conceptualizes personality pathology dimensionally rather than categorically, emphasizing maladaptive personality traits that vary along continua [36].

Interestingly, results regarding prevalence rates of personality disorders in transgender individuals differ between categorical and dimensional approaches [23]. Studies using clinician-based diagnostic judgments often report higher prevalence rates than studies using standardized self-report measures or structured interviews [27]. This discrepancy highlights the importance of standardized assessment tools and patient-reported measures, which may reduce diagnostic bias and provide a more nuanced understanding of personality functioning in transgender populations.

Body image represents an important factor in understanding mental health among transgender individuals [29,37-40]. However, body image concerns are shaped not only by physical incongruence but also by social and contextual influences. Minority stress, including stigma and discrimination, as well as internalized transphobia, are associated with more negative body evaluations [12,14,41,42]. Vice versa, higher levels of body dissatisfaction have been associated with a range of mental health outcomes, including depression, anxiety, eating-related concerns, and reduced quality of life [43,44]. Improvements in body satisfaction have been observed following gender-affirming medical interventions [30,45]. However, to our knowledge, limited research has examined associations between body image and personality traits among transgender individuals.

In cisgender populations, gender differences in personality disorder diagnoses have been consistently reported. BPD has historically been diagnosed more frequently in cisgender women than in cisgender men, with clinical samples often reporting ratios of approximately 2:1 [22,46]. However, some researchers argue that these differences may partly reflect diagnostic practices and gendered expectations regarding emotional expression rather than true prevalence differences. In line with this hypothesis, community-based studies often find more balanced rates across genders [47,48]. In transgender populations, evidence regarding gender differences in personality disorder diagnoses is more limited and inconsistent. Most studies report similar prevalence rates among transmasculine and transfeminine individuals, suggesting that the gender patterns observed in cisgender populations may not translate directly to transgender groups [7,23].

The current study examined personality dimensions relevant to mental health in transgender individuals and their associations with gender dysphoria and body image. Using a dimensional self-report approach rather than categorical clinical assessments, it first identified which personality dimensions show the highest expression and the greatest deviation from cisgender normative values. It also explored whether subgroups could be identified based on these profiles. Second, the study investigated associations between body image and personality dimensions. It further examined gender dysphoria as a potential mediating factor. Third, gender differences in personality and body image were assessed. This allowed evaluation of whether distinct profiles emerged across gender groups. Overall, the study aimed to clarify how personality, body image, and gender dysphoria were interrelated.

Material and methods

Study design and sample characteristics

This retrospective cross-sectional analysis was performed on data collected in Austria between 2022 and 2025. The sample consisted of 110 subjects who presented for clinical psychological assessments to obtain access to gender-affirming hormone therapy in a specialist public diagnostic practice. All assessments were performed by the first author of this article (UK), who specializes in transgender assessments since 2005. To ensure demographic comparability between individuals seeking masculinizing and individuals seeking feminizing treatment, only subjects aged between 18 and 40 years were included in this retrospective analysis. Gender identity was assessed by subjective report and confirmed by the Gender Identity Questionnaire (GIQ) [35].

Ethics statement

This retrospective analysis was conducted in accordance with the principles of the Declaration of Helsinki. The study protocol was reviewed and approved by the Ethics Committee Salzburg (approval number: 1134/2025). As the study involved secondary analysis of existing clinical data and no direct contact with participants, the requirement for informed consent was waived by the ethics committee. All data were anonymized prior to analysis to ensure confidentiality.

Measures

Gender dysphoria: The extent of gender dysphoria was assessed with the Utrecht Gender Dysphoria Scale (UGDS), a widely used self-report instrument designed to assess the intensity of gender dysphoria in adolescents and adults [49]. The scale consists of items that measure discomfort with one's assigned sex and sexed body characteristics, as well as identification with another gender. Respondents rate items on a five-point Likert scale, with higher scores indicating greater levels of gender dysphoria. The UGDS has demonstrated good internal consistency and construct validity in transgender and gender-diverse samples, and separate versions have been developed for individuals assigned male at birth and assigned female at birth to ensure item relevance [49]. The UGDS is commonly used in both clinical and research settings to quantify gender dysphoria severity and to examine its associations with mental health and psychosocial variables.

Personality dimensions associated with personality disorder diagnoses: The Inventar Klinischer Persönlichkeitsakzentuierungen (IKP) [50] was used to assess personality dimensions. The Basic Inventory (IKP-G) assesses eleven personality dimensions corresponding to the official diagnostic units of personality disorders described in DSM-IV and ICD-10, i.e. paranoid, dependent, impulsive-explosive, schizoid, narcissistic, borderline, avoidant-insecure, obsessive-compulsive, schizotypal, antisocial, and histrionic personality dimensions. Each dimension is measured by ten items and captures characteristic behavioral, emotional, and cognitive patterns associated with the respective personality disorder.

Responses are recorded on a four-point Likert scale (1-4) with a symmetrical structure, allowing participants to indicate the degree to which each statement applies to them. For each scale, empirically

derived cut-off scores are provided to indicate clinically relevant personality disorder manifestations. For clarity, the personality dimensions assessed by the IKP were additionally grouped according to the DSM personality disorder cluster framework, which classifies personality disorders into three clusters based on shared clinical characteristics:

- Cluster A (odd or eccentric disorders) including paranoid, schizoid, and schizotypal dimensions;
- Cluster B (dramatic, emotional, or erratic disorders) including antisocial, borderline, histrionic and narcissistic dimensions;
- Cluster C (anxious or fearful disorders) including avoidant-insecure, dependent, and obsessive-compulsive dimensions [22].

Additionally, the IKP assesses impulsive-explosive traits which are not categorized according to DSM-5 but can be a clinical symptom of multiple personality disorders.

Personality dimensions relevant for mental health: The Supplementary Module (IKP-Eg) of the IKP [50] extends the assessment by thirteen additional personality dimensions relevant for mental health, each measured by ten items. Among these are dimensions such as asthenic-nervous, manifold/hyperthymic, addiction-prone/weak-willed, and obsessive-insecure personality traits. Furthermore, the module assesses personality characteristics related to affective instability, anxiety, aggression, and psychosis-related tendencies. The included dimensions encompass oppositional-contentious, asthenic-nervous, passive-aggressive, risk-taking/adventurous, cyclothymic, performance-anxiety-prone, dissociative, depressive, disorganized, fearful (physically threat-sensitive), manifold/hyperthymic, obsessive-insecure, and addiction-prone personality tendencies.

Body image: Body image was assessed using the Frankfurter Körperkonzept Scales (FKKS) [51], a standardized self-report instrument designed to measure multidimensional aspects of body experience. The FKKS comprises several subscales that capture cognitive, emotional, and behavioral dimensions of body image, including satisfaction with one's body, physical efficacy, sexual attractiveness, and self-care. Items are rated on a five-point Likert scale, with higher scores indicating a more positive body concept. Cut-off criteria for negative, neutral and positive body image for each scale are defined based on the normative sample. The FKKS has demonstrated good internal consistency (Cronbach's alpha .73 - .92) and construct validity in both clinical and non-clinical samples.

Statistical analysis

Statistical analysis was performed using R 4.4.1 [52]. To address aim 1, personality dimensions in transgender individuals were compared to cisgender normative values using one-sample t-tests, as well as Wilcoxon signed-rank tests in case of violations of normality. To explore whether subgroups of the transgender population could be identified based on personality profiles, we performed hierarchical cluster analysis, followed up by kmeans cluster analysis. The number of clusters was determined by the *fviz_nbclust()* function of the *factoextra* package.

To address aim 2, body image dimensions in transgender individuals were first compared to cisgender normative values as described in the diagnostic manuals for the FKKS [51] using one-sample t-tests and then correlated to personality dimensions as measured by the IKP [50] using spearman correlations.. To explore gender dysphoria as a potential mediator, the UGDS was also correlated to both body image dimensions and personality dimensions using spearman correlations. Finally, to explore gender differences in personality dimensions and body image, two-sample t-tests were performed. For all analyses, multiple-comparisons correction was performed using False Discovery Rate (FDR) adjustment of p-values.

Results

Demographic characteristics of the sample

64 individuals were identified as transmasculine and sought masculinizing treatment and 46 individuals were identified as transfeminine and sought feminizing treatment. Demographic characteristics were comparable between groups. Details are summarized in Table 1.

Table 1: Demographic Data of individuals seeking masculinizing treatment (FtM) and feminizing treatment (MtF). Age was compared using an independent samples t-test, education, employment and relationship status via Chi-Squared tests.

	FtM (n = 64)	MtF (n = 46)	Comparison (p)
Age	21.66 ± 5.03	23.52 ± 5.25	.06
Education			.28
Primary school	3 (5 %)	0 (0 %)	
Secondary school	17 (27 %)	11 (24 %)	
Middle school	20 (31 %)	13 (28 %)	
High school	20 (31 %)	18 (39 %)	
University degree	4 (6 %)	4 (9 %)	
Employment			.37
Unemployed	17 (27 %)	15 (33 %)	
Employed	18 (29 %)	16 (36 %)	
In education	28 (44 %)	14 (31 %)	
In Relationship	14 (22 %)	13 (28 %)	.54

Personality dimensions relevant for personality disorder diagnoses and mental health

Regarding personality dimensions relevant for personality disorder diagnoses (Table 2), transgender individuals primarily displayed higher scores in Cluster C related traits, i.e., avoidant traits, for which 25% of transgender individuals reached clinical cut-offs and to a lesser extent obsessive traits. Among cluster A traits, transgender individuals displayed significantly lower levels along the paranoid dimensions, but significantly higher levels along the schizoid dimension, for which 19% reached clinical cut-offs. Among cluster B traits, transgender individuals displayed significantly lower scores on antisocial and histrionic traits compared to the cisgender norm and most importantly no significant differences regarding borderline traits, though 7% reached clinical cut-offs. Regarding personality dimensions relevant for mental health (Table 2), transgender individuals displayed significantly higher scores along the internalizing spectrum, as well as for disorganized thought and significantly lower scores among the externalizing spectrum compared to the cisgender normative sample. No differences were observed for impulsive traits, risk-taking or addiction-proneness.

Table 2: Comparison of transgender individuals to the cisgender norm regarding personality dimensions relevant to personality disorders (IKP) and mental health (IKP-Eg).

Dimension	df	Mean	SD	Cohens d	t	wt	p _{FDR}	> Cutoff
IKP: Personality dimensions relevant for personality disorders								
Cluster A: Eccentric								
Paranoid	109	19.76	5.41	-0.23	-2.40	1763	.011	2%
Schizoid	109	22.53	7.35	0.75	7.89	4841	< .001	19%
Schizotypal	109	16.59	5.58	0.28	2.99	3511	.067	5%
Cluster B: Dramatic/Erratic								
Antisocial	97	12.41	2.08	-1.25	-12.34	235	< .001	2%
Histrionic	109	18.95	4.49	-0.23	-2.46	1893	.015	0%
Narcissistic	108	17.39	5.07	-0.12	-1.25	1861	.076	1%
Borderline	107	16.12	5.14	0.32	3.28	3595	.060	7%
Cluster C: Anxious								
Avoidant	109	26.09	7.21	0.98	10.31	5548	< .001	25%
Compulsive	108	22.33	5.27	0.44	4.61	3869	< .001	3%
Dependent	109	19.22	6.15	0.28	2.93	3753	.052	7%
Other								
Impulsive	109	18.32	6.02	0.05	0.55	2418	.743	1%
IKP-Eg: Personality dimensions relevant to mental health								
Internalizing spectrum								
Depressive	109	20.41	6.71	0.95	10.01	4463	< .001	13%
Dissociative	106	17.01	5.89	0.68	7.04	4315	< .001	15%
Obsessive	109	21.18	7.00	0.67	7.02	4974	< .001	12%
Anxious	109	23.25	7.70	0.62	6.46	4845	< .001	17%
Asthenic	109	20.54	6.73	0.53	5.51	3818	< .001	15%
Cyclothymic	109	21.57	7.63	0.40	4.22	4203	.001	8%
Fearful	105	15.80	3.94	-0.43	-4.44	1501	< .001	4%
Externalizing spectrum								
Oppositional	109	18.55	5.80	-0.25	-2.63	2030	.013	2%
Risk-taking	108	16.60	5.08	0.02	0.20	2835	.650	5%
Other								
Disorganized	109	21.34	6.71	0.80	8.34	5087	< .001	20%
Passive-aggressive	109	19.13	5.75	0.28	2.97	3870	.022	11%
Maniform	108	18.67	5.06	-0.16	-1.71	2401.5	.081	4%
Addiction-prone	106	15.10	5.47	0.02	0.19	2368.5	.423	7%

Cluster analysis of personality dimensions among transgender individuals

Based on hierarchical cluster analysis an optimal number of 2 clusters was determined, and individuals were assigned to clusters based on hierarchical cluster analysis on the one hand, as well as k-means clustering on the other hand. Rather than reflecting distinct personality profiles, one cluster was characterized by higher scores across nearly all personality dimensions (Table 3), indicating a greater presence of personality-disorder related characteristics in this group. In contrast, the second cluster exhibited markedly lower scores across all personality dimensions, indicating a low expression of personality-disorder related characteristics.

Association between body image and personality dimensions.

As expected, transgender individuals had significantly lower

Table 3: Comparison of personality dimensions relevant for personality disorders and mental health between clusters derived by k-means cluster analysis.

	Cluster 1		Cluster 2		Comparison			
Dimension	Mean	SD	Mean	SD	Cohens d	t	wt	p _{FDR}
IKP: Personality dimensions relevant to personality disorders								
Cluster A: Eccentric								
Paranoid	17.56	4.03	24.49	4.98	-1.59	-7.19	373	< .001
Schizoid	20.00	6.20	27.94	6.74	-1.25	-5.91	522	< .001
Schizotypal	13.64	2.91	22.91	4.60	-2.63	-10.95	118	< .001
Cluster B: Dramatic/Erratic								
Antisocial	12.29	2.49	16.11	4.70	-1.14	-4.52	615	< .001
Histrionic	17.93	3.90	21.11	4.94	-0.75	-3.35	826	.002
Narcissistic	16.29	4.57	20.23	5.79	-0.79	-3.54	781	.001
Borderline	14.31	4.02	21.09	6.05	-1.43	-6.04	434	< .001
Cluster C: Anxious								
Avoidant	23.81	6.84	30.97	5.40	-1.12	-5.93	564	< .001
Compulsive	20.63	4.71	26.40	4.79	-1.22	-5.92	530	< .001
Dependent	17.44	5.48	23.03	5.84	-1.00	-4.77	601	< .001
Other								
Impulsive	16.09	4.96	23.09	5.32	-1.38	-6.56	447	< .001
IKP-Eg: Personality dimensions relevant to mental health								
Internalizing spectrum								
Depressive	18.61	6.10	24.26	6.43	-0.91	-4.36	705	< .001
Dissociative	15.00	5.01	22.91	6.31	-1.45	-6.53	398	< .001
Obsessive	18.92	6.42	26.03	5.64	-1.15	-5.88	550	< .001
Anxious	20.99	7.13	28.09	6.65	-1.02	-5.09	627	< .001
Asthenic	18.19	5.87	25.57	5.66	-1.27	-6.30	495	< .001
Cyclothymic	18.48	6.16	28.20	6.14	-1.58	-7.72	372	< .001
Fearful	15.23	3.73	18.80	5.98	-0.78	-3.25	840	.002
Externalizing spectrum								
Oppositional	17.09	5.41	21.66	5.44	-0.84	-4.11	721	< .001
Risk-Taking	15.61	4.63	19.17	5.86	-0.70	-3.16	828	.003
Other								
Disorganized	18.77	5.84	26.83	4.96	-1.44	-7.49	400	< .001
Passive-aggressive	17.21	5.11	23.23	4.90	-1.19	-5.92	535	< .001
Maniform	17.48	4.49	21.66	5.66	-0.85	-3.84	742	< .001
Addiction-prone	14.53	5.65	17.89	6.67	-0.56	-2.57	875	.013

scores on all body image dimensions except body care for which they displayed significantly higher scores compared to the cisgender norm (Table 4).

Almost all personality dimensions relevant for personality disorders or mental health were negatively associated with physical health (Figure 1). Furthermore, a more negative body image across all domains was associated with schizoid and avoidant personality characteristics as well as internalizing symptoms and disorganized thought. Associations were lower for borderline and dependent personality characteristics, passive-aggressive traits and addiction-proneness. The extent of gender dysphoria as assessed with the UGDS was not associated with either personality dimensions relevant for personality disorders or body image and did thus not mediate this association.

Gender differences in body image and personality dimensions

Interestingly, no gender differences were observed in either body image dimensions or personality dimensions relevant for personality disorders and mental health (Tables 5-6). All scores were comparable between individuals seeking masculinizing or feminizing treatment.

Table 4: Comparison of transgender individuals to the cisgender norm regarding body image dimensions.

Dimension	df	Mean	SD	Cohens d	t	wt	P _{FDR}
Self Acceptance	105	17.24	4.67	-1.71	-17.58	38	< .001
Acceptance by others	103	10.75	3.30	-1.14	-11.59	347	< .001
Sexuality	105	20.35	5.44	-1.00	-10.32	487	< .001
Self Discipline	105	15.38	2.35	-0.90	-9.29	596	< .001
Self esteem	105	56.39	9.86	-0.64	-6.60	1041	< .001
Physical Fitness	106	36.85	9.72	-0.48	-4.95	1465	< .001
Physical Health	106	22.95	6.11	-0.45	-4.65	1568	< .001
Physical Contact	106	22.60	7.10	-0.38	-3.94	1772	< .001
Body Care	106	34.07	6.04	0.59	6.13	4579	< .001

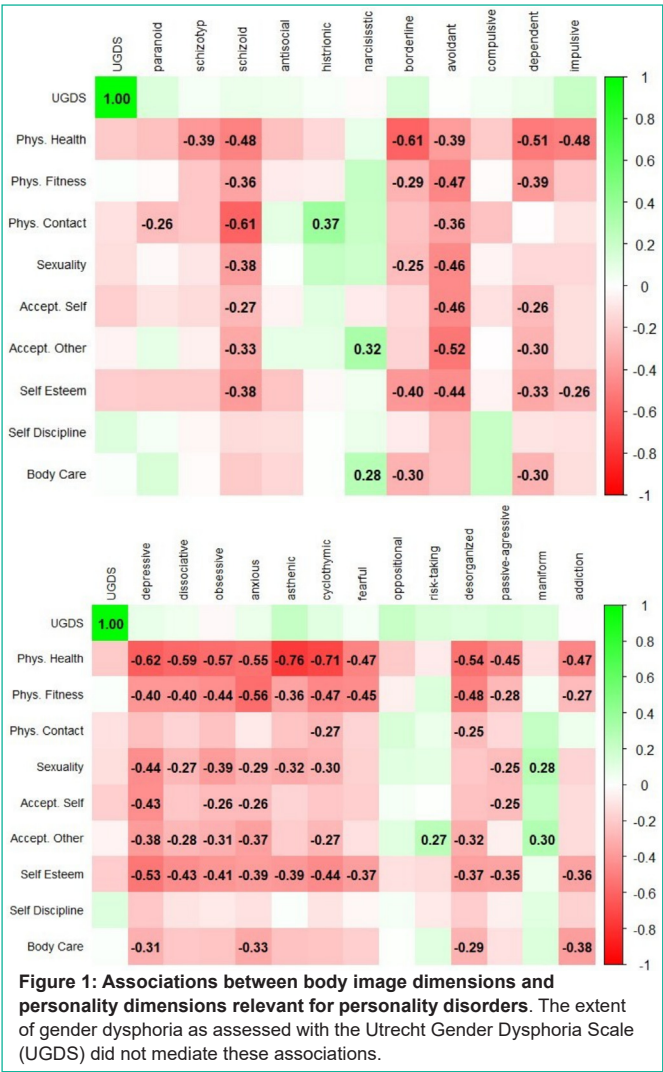


Table 5: Gender differences in personality dimension relevant for personality disorders and mental health.

Dimension	MtF		FtM		Comparison			
	Mean	SD	Mean	SD	Cohens d	t	wt	P _{FDR}
IKP: Personality dimensions relevant for personality disorders								
<i>Cluster A: Eccentric</i>								
Paranoid	19.09	4.84	20.25	5.78	-.22	-1.15	1319	.470
Schizoid	21.30	6.59	23.41	7.78	-.29	-1.53	1241	.344
Schizotypal	16.22	4.74	16.86	6.14	-.11	-0.62	1439	.696
<i>Cluster B: Dramatic/Erratic</i>								
Antisocial	13.91	4.32	13.22	3.34	.18	0.91	1545	.626
Histrionic	19.22	4.57	18.75	4.46	.10	0.53	1526	.696
Narcissistic	18.28	5.76	17.02	4.91	.24	1.21	1633	.459
Borderline	15.11	4.79	17.44	6.12	-.42	-2.24	1125	.247
<i>Cluster C: Anxious</i>								
Avoidant	26.65	6.87	25.69	7.48	.13	0.70	1580	.696
Compulsive	21.59	4.96	23.09	5.70	-.28	-1.48	1254	.344
Dependent	18.76	5.37	19.55	6.68	-.13	-0.68	1440	.696
<i>Other</i>								
Impulsive	16.76	5.63	19.44	6.08	-.45	-2.38	1084	.247
IKP-Eg: Personality dimensions relevant for personality disorders								
<i>Internalizing Spectrum</i>								
Depressive	20.43	6.01	20.39	7.23	.01	0.03	1530	.972
Dissociative	16.11	5.10	18.53	7.32	-.37	-2.05	1207	.247
Obsessive	20.72	6.81	21.52	7.17	-.11	-0.59	1395	.696
Anxious	22.80	7.47	23.56	7.91	-.10	-0.51	1393	.696
Asthenic	18.96	6.01	21.67	7.04	-.41	-2.17	1152	.247
Cyclothymic	20.26	7.03	22.52	7.95	-.30	-1.57	1239	.344
Fearful	16.59	5.27	16.20	4.54	.08	0.40	1477	.721
<i>Externalizing Spectrum</i>								
Oppositional	17.41	4.98	19.36	6.24	-.34	-1.82	1212	.247
Risk-Taking	15.67	4.16	17.52	5.89	-.35	-1.92	1250	.247
<i>Other</i>								
Disorganized	20.43	6.46	21.98	6.86	-.23	-1.21	1299	.459
Passive - aggressive	18.74	5.52	19.41	5.94	-.12	-0.61	1378	.696
Maniform	17.72	5.29	19.59	5.11	-.36	-1.86	1158	.247
Addiction-Prone	15.28	5.43	15.83	6.68	-.09	-0.47	1440	.696

Table 6: Gender differences in body image dimensions as assessed with the FKKS.

Dimension	MtF		FtM		Comparison			
	Mean	SD	Mean	SD	Cohens d	t	wt	P _{FDR}
Self Acceptance	17.48	5.37	17.30	4.48	.04	0.19	1358	.852
Acceptance by others	10.91	3.57	11.20	3.96	-.07	-0.39	1366	.852
Sexuality	21.48	5.60	19.75	5.57	.31	1.58	1605	.527
Self Discipline	15.26	2.65	15.59	2.30	-.13	-0.67	1287	.830
Self esteem	56.46	10.72	55.85	9.90	.06	0.30	1398	.852
Physical Fitness	37.50	9.99	36.36	9.56	.12	0.59	1514	.830
Physical Health	24.07	5.47	22.11	6.47	.32	1.69	1643	.527
Physical Contact	23.43	6.78	21.97	7.32	.21	1.07	1548	.830
Body Care	34.67	6.01	33.62	6.06	.17	0.89	1524	.830

Discussion

The current study aimed to address the topic of personality disorders in transgender individuals using a self-report dimensional

rather than clinician-based categorical approach in order to capture aspects relevant to the overall mental health of transgender individuals. Based on this approach we assessed (i) which personality dimensions were most prominent in transgender individuals by means of comparison with the cisgender normative population and explored whether subgroups of transgender individuals could be identified based on their personality profile, (ii) whether body image was related to personality dimensions relevant for personality disorders and mental health and (iii) gender differences in body image and personality dimensions.

Results revealed that personality of transgender individuals was most prominently characterized by higher expression of personality dimensions on the internalizing spectrum, as well as avoidant and schizoid traits compared to the cisgender normative population, but lower expression of personality dimensions on the externalizing spectrum and antisocial traits compared to the cisgender normative population. Clustering only revealed subgroups based on severity of expression but not based on different symptom profiles. Particularly the highly expressed traits were related to lower body image satisfaction scores across all dimensions, though neither body image nor personality dimensions were related to the extent of gender dysphoria. Furthermore, neither body image nor personality dimensions showed gender differences.

Our observations regarding personality characteristics among transgender individuals differ from earlier studies suggesting high rates of borderline personality disorder diagnoses [24-27]. In the current sample, borderline trait expression did not differ significantly from normative values. This support concerns that elevated diagnosis rates may partly reflect misclassification due to clinician bias, or limitations in diagnostic tools [32,33]. These findings highlight the importance of careful, context-sensitive assessment practices. Such approaches can help ensure that support focuses on relevant experiences rather than potentially misleading classifications.

This observation is particularly relevant for understanding links between personality and mental health. Our findings suggest a tendency toward internalizing rather than externalizing patterns among transgender individuals. This may reflect the impact of minority stress, including experiences of stigma. The observed pattern aligns with research describing more internalizing forms of distress, such as mood-related and anxiety-related experiences, as well as self-harm and suicidality [5-8]. These results have implications for therapeutic approaches. Interventions that address internalized distress and promote adaptive coping may be particularly helpful. The identification of subgroups based on severity rather than profiles supports this perspective.

Regarding associations with body image, several key observations emerge. Lower body satisfaction was linked to personality dimensions more commonly expressed in this sample. These associations were consistent across most body image domains. An exception was found for self discipline and body care, where links were less evident. Associations with borderline traits were less consistent, suggesting differing underlying processes. This highlights that similar behaviors may reflect distinct experiences. Body image appears to be an important factor in understanding mental health among transgender individuals. The findings underline the need for gender-sensitive

assessment tools beyond cis-normative measures. This study extends prior work by linking body image with both mental health and personality dimensions. While associations were observed, they do not entail causality and were not explained by the extent of gender dysphoria.

Finally, it is noteworthy that no gender differences emerged in any of the assessed personality dimensions, even though such differences have frequently been described in cisgender populations [53,54]. This observation may suggest that observed personality patterns are more closely related to shared experiences or contextual factors rather than the direction or extent of transition. At the same time, it is important to consider that reported gender differences in personality disorders within cisgender populations may also reflect methodological limitations and potential diagnostic biases, similar to those affecting comparisons between transgender and cisgender groups.

Strength and limitations

The present study has several strengths and limitations that should be considered when interpreting the findings. Key strengths are the comparatively large sample for the field and the clinical setting, which supports relevance to transgender individuals seeking care in Austria. The inclusion criteria were designed to achieve a balanced distribution of transmasculine and transfeminine individuals for comparability across groups. However, this approach may limit representativeness within each subgroup, as it does not necessarily reflect their natural distribution in the population.

Additionally, because clinical psychological assessment is a prerequisite for accessing gender-affirming hormone therapy in Austria, participants may have been motivated to respond in a socially desirable manner, potentially biasing results – particularly among non-binary individuals who may face additional barriers in clinical contexts. Methodologically, the use of a dimensional, self-report approach to assessing personality pathology represents a strength as it allows for a more nuanced and less pathologizing understanding compared to categorical diagnoses. At the same time, self-report measures are inherently subjective and susceptible to response biases. Finally, the use of the UGDS as a measure of gender dysphoria constitutes a limitation, as it is considered outdated and may not fully capture contemporary conceptualizations of gender diversity and dysphoria.

Conclusions

In conclusion, this study highlights a distinct personality profile in transgender individuals characterized by elevated internalizing tendencies and avoidant traits, alongside low externalizing features. These findings challenge prior assumptions of heightened borderline pathology and suggest that earlier reports may reflect diagnostic bias rather than true differences in underlying personality processes. Body image emerged as a central factor, closely associated with the most prominent personality dimensions but independent of gender dysphoria severity. The absence of distinct subtypes and gender differences further points to shared underlying mechanisms, potentially linked to minority stress. Overall, the results emphasize the importance of dimensional, non-pathologizing approaches and suggest that clinical interventions should focus on internalizing processes and body image concerns in transgender mental health.

Author declarations

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Author contributions

UK: Conceptualization, data curation, investigation, formal analysis, and writing—original draft (results section); writing—review and editing. UK led data collection and retrieval, conducted assessments, performed analyses, and reviewed the manuscript; MR: Writing—review and editing; supervision. MR contributed to critical revision of the introduction and discussion and provided intellectual input; NK: Data curation, formal analysis, and writing—review and editing. NK contributed to data entry, data cleaning, data analysis, and manuscript revision and translation; SB: Investigation and writing—review and editing. SB contributed to literature-related work, manuscript drafting and revision, and translation; All authors contributed to the conception and design, analysis or interpretation of data, critically revised the manuscript, approved the final version, and agree to be accountable for all aspects of the work.

Ethical considerations

This study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the appropriate ethics committee (Ethikkommission Land Salzburg: 28.11.2025). As this was a retrospective analysis of existing data, no direct contact with participants occurred, and all data were analyzed in anonymized form.

Consent to participate

Due to the retrospective nature of the study and the use of anonymized data, the requirement for informed consent was waived by the responsible ethics committee.

Consent for publication

Not applicable, as the study does not include any identifiable individual data.

Conflict of interest

The authors declare that they have no conflict of interest.

Data availability statement

The raw data supporting the conclusions of this article are available from the first author UK upon reasonable request.

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