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PSYCHOLOGICAL ASSESSMENT IN ANOREXIA NERVOSA: A SINGLE CASE STUDY ON PREDICTIVE FACTORS OF DROPOUT

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SUMMARY

Anorexia nervosa (AN) has the highest mortality rate among psychiatric disorders. Adult AN patients have a chronic history of treatment dropout due to denial of their psychological and physical disease states, which may be connected to defense mechanisms. We developed an assessment protocol to evaluate the psychological functioning of patients undergoing a psychodynamic approach for eating disorders (PAED), aimed at identifying the psychological factors associated with intervention success or dropout. We analyzed the case of an adult patient who quit treatment at the start and discussed her psychological functioning profile. We present the case of a 45-year-old woman with enduring AN, who entered the PAED program at an Italian hospital. In adult AN patients, denial and acting out may have significant impacts on clinic compliance. This hampers establishing a relationship with the clinic and the success of the psychological work aimed at promoting mental awareness and insights into the disorder. This highlights the need to consider which aspects of the initial psychological assessment are predictive of dropout in AN patients.

Key words: *eating disorders – anorexia – dropout - psychological assessment*

Abbreviations: *AN - Anorexia Nervosa; GDS - Global Burden of Disease Study; FED - Food and Eating Disorders Clinic; ED - Eating Disorder; BMI - Body Mass Index; PAED - Psychodynamic Approach for Eating Disorders; DSM-5 TR - Diagnostic and Statistical Manual of Mental Disorders, 5th Edition, Text Revision; ICD-10 - International Classification of Diseases, 10th Revision*

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INRODUCTION

The Global Burden of Disease Study showed that mental disorders have been among the top ten leading causes of the global disease burden since 1990 (GDS 2022). In Western countries, lifetime prevalence rates of AN are 4% among females and 0.3% among males, with increased incidence rates in adolescents (aged < 15 years) (GDS 2022). Despite extensive research into psychological and pharmacological treatments, anorexia nervosa (AN) is associated with the highest mortality rates among all psychiatric disorders (GDS 2022). The mortality risk is approximately two times higher in AN outpatients, and up to five times higher after in-house treatment than in age- and sex-matched controls in the general population (van Hoeken & Hoek 2020).

Timely diagnosis and treatment may lead to full recovery. The outcome is more favorable in adolescents who are treated rapidly as outpatients where families can actively support their recovery; however, AN in adults is associated with treatment resistance and chronicity (van Hoeken & Hoek 2020). Treatment is often hampered by reduced insight, leading to treatment dropout and the development of chronic AN in adults. Overall, only 30% of subjects are completely free of symptoms ten years after diagnosis (Eddy et al. 2017).

Although the disease etiology remains elusive, clinical work has shown that AN subjects are often brilliant and complex individuals, characterized by fragility, a pervasive sense of unreality, and difficulty tolerating and regulating their feelings (Bryant 2021, Buhl 2022). Such difficulties have been associated with immature defense mechanisms and a lack of mentalizing, which are rooted in an insufficient primary attachment (Costanzo et al. 2022). In the absence of a properly developed reflective function, such subjects tend to manage highly emotional states through acting out, and the obsessions about their bodily functions become a means to control their powerful feelings of shame, anguish, and anxiety (Dejong et al. 2012). AN subjects often refuse psychological intervention and deny their medical and psychological conditions. Most adult subjects have had several therapy attempts and dropouts. The lack of mentalizing and insight is a major contributor to the factors associated with dropout (Buhl 2022, Dejong et al. 2012).

This study describes a patient enrolled in an ongoing interventional study for Eating Disorders (EDs). She

completed an extensive psychological assessment but then decided to drop out of the psychological intervention. The present case study includes a preliminary battery of tests used to assess the patient's psychological profile to identify predictive risk factors for treatment dropout.

From a perspective of integrating clinical and empirical data, the evaluation protocol tools, and the results are reported and then discussed together. This is to bridge the gap between clinical observation and research (Roth & Fonagy 2005, Porcerelli et al. 2007).

SUBJECT AND METHODS

A 45-year-old married woman with three children, a college education, and a prestigious professional occupation, was referred to the Food and Eating Disorders (FED) Clinic of an Italian University Hospital because of low body mass index (BMI: 17.02 kg/m^2). She was sent for assessment by her employer's occupational medicine service since her supervisor suspected the presence of an ED. The patient was well-educated and came from a Caucasian culture.

At the clinical interview, she reported a body weight of 48 kg at the age of 15, when she suffered three months of amenorrhea. She started psychotherapy, on the advice of her family, but was unable to complete treatment because she did not feel well. Her current eating pattern is characterized by a single daily meal and, on some days, no meal at all. The patient attributes fasting to her tight working schedule, tiredness, and family conflicts. She also reports compensatory physical activity, including four-hour sessions four times a week, although she denies the compensatory role of this activity, attributing it to a passion for fitness, and denies other binge-purging behaviors. The patient reports suffering from moderate distress due to pursuing her career and family conflicts derived from her role as a working mother. The male partner is perceived as non-supportive. The patient shows a striking lack of insight about the dysfunctionality of her eating and compensatory behaviors. She declares that she would like to increase her weight so that her employers will dismiss their worries about her health and give her the desired promotion.

Statistical analysis

The patient's mean scores and T-scores are reported for the Eating Disorder Inventory-3 (EDI-3) and Personality Assessment Inventory (PAI) instruments. To fully understand the patient's scores concerning the normative sample, the EDI-3 and PAI scores are reported as Z scores (Clausen et al. 2011, Pignolo et al. 2018). The presence or absence of pathology was evaluated based on the cutoff scores indicated in the manuals, with usage license (Giannini et al. 2008, Zennaro et al 2015). The patient's mean and normative scores are reported for the Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM), Defense Mechanisms Rating Scales Self-Report (DMRS-SR-30), and Reflective Functioning Questionnaire (RFQ) tests, (Di Giuseppe et al. 2020, Fonagy et al. 2016, Palmieri et al. 2009). All statistical analyses were performed using the Statistical Package for the Social Sciences (IBM SPSS version 22).

Measures

The EDI-3 (Garner 2004) is a self-report questionnaire that includes 91 items and three subscales: ED risk scales (drive for thinness (DT) and body dissatisfaction (BD)); subscales investigating more general psychological traits associated with ED, including low self-esteem (LSE), personal alienation (PA), interpersonal insecurity (II), interpersonal alienation (IA), interoceptive deficits (ID), emotional dysregulation (ED), perfectionism (P), and maturity fear (MF); and composite scoring scales (eating disorder risk (EDRC), general psychological maladaptation score (GPMC), inadequacy (CI), and interpersonal problems IPC). A validation study shows good psychometric characteristics (Clausen et al. 2011).

The PAI (Morey 1991) is a self-report questionnaire including 344 items to assess personality functions and the presence of psychopathology. It includes 11 clinical scales (somatization (SOM), anxiety (ANX) and anxiety-related disorders (ARD), depression (DEP), mania (MAN), paranoia (PAR), schizophrenia (SCZ), borderline personality disorder (BOR), antisocial behavior (ANT), alcohol intake (ALC), and substance use (DRG)). Higher scores indicate greater difficulties in the personality and psychopathological dimensions. The patient's scores are compared with Italian normative data (Pignolo et al. 2018).

The CORE – OM (Evans et al. 2002) is a self-report questionnaire composed of 34 items to assess case severity. It measures the psychological distress over the last seven days and includes three areas of well-being, general and social functioning (including anxiety, depressive, physical, and traumatic disorders, significant relations, and general and social functioning), and the risk of auto-hetero-aggression. Higher scores indicate higher case severity. The clinical cut-off for psychological distress is 11; with 10.1–15, indicating mild distress, 15.1–20 moderate distress, 20.1–25 moderate-severe distress, and 25.1–40 severe distress. The normative data of the Italian version are presented (Palmieri et al. 2009).

The DMRS – SR-30 (Di Giuseppe et al. 2020) is a 30-item 5-point scale assessing defense mechanisms. The measure provides multiple scoring levels, including an Overall Defensive Functioning (ODF) index, three

defense categories, and two subcategories. It encompasses seven defense levels and 28 individual defense mechanisms (Di Giuseppe & Perry 2021). The three defensive categories scores and the seven hierarchical levels scores sum up to 100. Scores below eight are considered outliers, indicating disproportionate use of a single defense mechanism or extreme scores (Di Giuseppe et al. 2020). Higher ODF scores indicate better defensive functioning. The Italian version has shown good reliability (Di Giuseppe et al. 2020).

The RFQ (Fonagy et al. 2016), is an 8-item self-report instrument assessing the capacity for mentalizing. The test includes two subscales; reflective functioning certainty (RFQ_C), investigating excessive certainty about their own and others' mental states, and reflective functioning uncertainty (RFQ_U), reflecting excessive uncertainty. A high score on the RFQ_C reflects low mentalizing abilities, while a high score on the RFQ_U reflects genuine mentalizing. It is available as a normative scale in FEDs and borderline patients (Fonagy et al. 2016).

RESULTS

Psychiatric diagnosis

According to the DSM-5 TR descriptive criteria, the subject met the requirements for AN, restricting type (ICD-10: F50.01) of a mild level severity (BMI ≥ 17 kg/m^2).

Clinical assessment

In the evaluation phase, the subject appeared cooperative, despite the motivation being primarily external. Her requests for clinical intervention have always been initiated by other people, leading to a lack of commitment and reduced compliance.

The clinical interview addressed the areas of personal, relational, and social functioning. Concerning personal functioning, the patient strongly identified with her professional role and was ambivalent towards her family role. Impulsivity and low tolerance to frustration, weak ego boundaries, and impaired reality testing emerged as the major limitations to overall functioning. The subject displayed an array of defensive mechanisms towards stressful emotions, including mature and immature strategies; with a predominance of the latter, including projection, denial of negative emotions, and rationalization. Her interpersonal functioning was characterized by hostility and difficulties in regulating negative emotions, especially anger, leading to frequent conflicts. The social functioning assessment showed few intimate relations, which were perceived as stable, although unsatisfactory. The professional sphere, which was although being perceived as a relevant source of gratification and self-esteem, was also associated with significant distress, due to the pressure to perform and the drive to succeed. The tension between the professional demands and family expectations further contributed to a state of anxiety and emotional dissonance.

Psychometric assessment

The psychological analysis that emerged from the standardized psychometric tools is described below.

The EDI-3 data are shown in Table 1. Positive traits are highlighted in gray. The composite average score for EDRC (61T) is high, suggesting a strong likelihood of an ED, with high scores in the DT (59T) and BD (56T) subscales. The GPMC (60T) also reflects a high level of distressing psychological traits associated with the ED, including LSE (54T), PA (59T), and IA (60T). Dysfunctional functioning is characterized by P (60T), and excessive demand for high performance standards, associated with low self-esteem and related feelings of II (50T) and IC (57T), which lead to PA and IA, indicating disappointment and a lack of trust in relationships (IPC 56T). Such an overload of negative emotions is reflected in the high ED subscale score (19), suggesting a tendency to emotional instability, impulsiveness, and self-destructive behavior; however, the presence of relevant ID (60T) indicates a difficulty in acknowledging and managing emotional states. Lastly, as suggested by the high fear score of the MF scale (57T), such emotional difficulties reflect a strong desire to escape the responsibilities and complexities of adult life.

The PAI results are shown in Table 2, positive traits are highlighted in gray. The subject answered the questions attentively and honestly, and the profile can be considered clinically valid.

The clinical scales show a tendency to mania and hyperactivity. The subject is active, and ambitious, but can also be impatient and hostile (aggression (AGG) 74 T), indicating dysphoric symptoms, which may reflect underlying depression.

The anxiety subscales showed a good ability to cope with pressure (ARD, 56T). Although a mild response to stressful situations may be present (STR, 62T), her anxiety is properly managed (ANX, 46T; ANX-P, 58T), and somatic complaints are low (SOM, 51T). In terms of personality, there was some affective instability (BOR-A, 69T), mild egocentrism (ANT-E, 63T), and problematic use of drugs (DRG, 62T), suggesting the presence of borderline personality traits. The interpersonal style is characterized by dominance (DOM, 66T), with self-assured behavior, and a tendency to assume control. The clinical treatment scales show high levels of aggression (AGG, 74T) and a perceived lack of social support (NON, 61T). The subject recognizes her difficulties and the need for help but shows significant resistance to treatment (RXR, 60T).

Table 1. Eating disorder profile according to EDI-3

EDI-3	Patient M (T)	Cutoff (T)	Interpretation	Normative clinic sample (Clausen et al. 2011) M	SD
Risk of Eating Disorder (EDRC)	80 (61T)	<42	Eating disorder	21.67	50.26
Inadequacy (IC)	29 (57T)	<42	Self-deficit	11.64	23.54
Interpersonal problem (IPC)	23 (56T)	<41	Social relationships anxiety	9.43	22.09
General psychological maladjustment (GPMC)	147 (60T)	<42	General anxiety	41.02	100.76
Eating Disorder Symptoms					
Drive for thinness (DT)	24 (59 T)	<48	Thinking about dieting and losing weight	9.01	16.46
Body dissatisfaction (BD)	24 (56 T)	<47	Contempt for one's own body	8.79	23.12
Associated Psychological Traits					
Low self-esteem (LSE)	12 (54T)	<42	Feelings of inadequacy	6.63	11.99
Personal alienation (PA)	17 (59 T)	<41	Strong feelings of emotional emptiness and poor self-understanding	5.77	11.56
Interpersonal alienation (IA)	16 (60 T)	<40	Lack of trust in relationships	4.85	11.11
Perfectionism (P)	14 (60 T)	<42	Demand for high performance achievement	5.21	8.55
Interpersonal insicurity (II)	7 (50 T)	<41	Discomfort in social relationships	5.95	10.99
Interoceptive deficit (ID)	25 (60T)	<41	Feeling emotions out of one's control	8.62	15.14
Emotional dysregulation (ED)	19 (64T)	<41	Emotional instability	6.01	8.96
Interoceptive deficit (ID)	25 (60T)	<41	Misunderstanding of intense emotions	8.62	15.14
Maturity fears (MF)	17 (57T)	<42	Desire to regress to childhood	7.02	13.03

EDI-3: Eating Disorder Inventory-3; Patient: Score of the assessed individual; T: T score; Cutoff (T): Threshold above which the trait is significant; Interpretation: Meaning of the score; Normative clinic sample (Clausen et al. 2011)

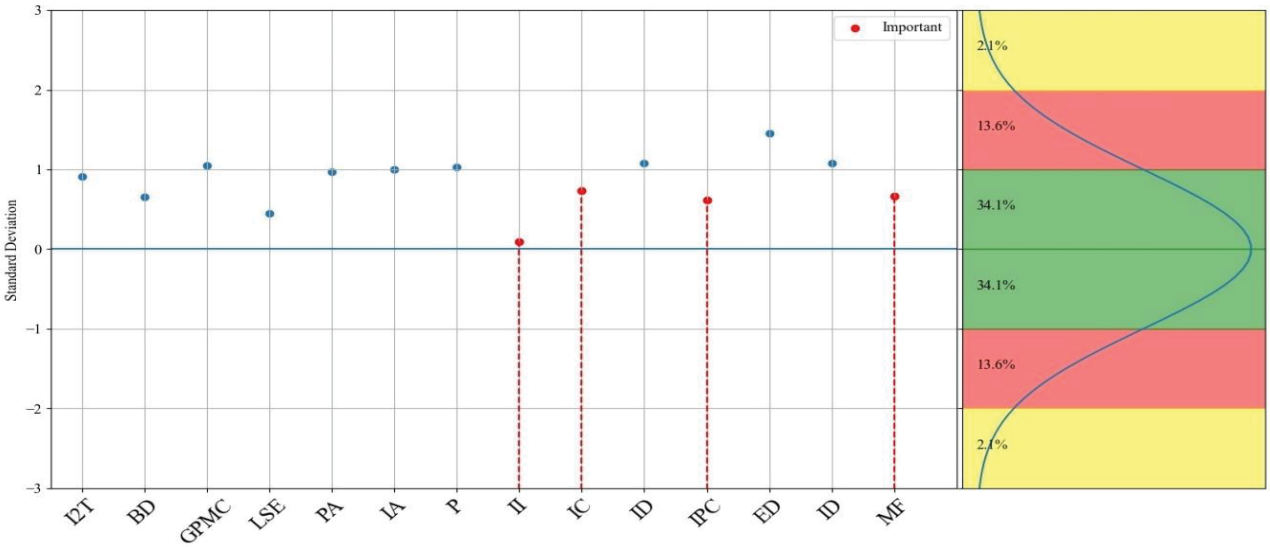

Figure 1. EDI-3: Z-score

Statistically, there are no outliers since all the other data fall between -2 and +2 (SD), representing scores that can be obtained in 95% of observations in a random sample of the underlying population (Figures 1 and 2). An outlier occurs for RXR where the z-score is > 2, indicating that only 2% of the population falls within that range of values, as shown in Figure 2.

The baseline CORE-OM scores indicate a mild case severity. Although the subject reported the presence of a problem in the depression and anxiety cluster (M = 13), she considered her difficulties to be mild, causing only moderate limitations to her general and social functioning (M = 15) and mild limitations to her subjective well-being (M = 12.5). The identified emotional problems were not associated with a risk of injury to self or others (M = 1.93). Data from the normative clinical sample are: Well-being (M = 2.00, SD = 0.86); problem area (M = 1.68, SD = 0.69); general and social functioning (M = 0.44, SD = 0.63); risk (M = 1.93, SD = 0.72) (Palmieri et al. 2009).

Table 2. Personality assessment according to the PAI data

PAI	Patient	Cutoff (T)	Interpretation	Normative clinic sample (Pignolo et al. 2018)	
				M	SD
Clinical validity	M		Valid		
Inconsistency (ICN)	10 (64)T	<60		5.69	3.06
Infrequency (INF)	4 (52T)	<60	Sufficient attention	3.50	2.47
Negative impression (NIM)	3 (51T)	<73	No exaggeration of problems	2.83	3.03
Positive impression (PIM)	11 (42T)	<44	Honest answers	14.93	4.80
Clinical scales					
Somatic complaints (SOM)	5 (51T)	<60	No somatic symptoms	12.18	14.25
Anxiety (ANX)	25 (46T)	<60	No anxiety; tends to show strength	21.64	15.42
Physiological anxiety (ANX-P)	2 (58T)	<60	No somatic anxiety	5.76	4.05
Anxiety-related disorders (ARD)	2 (56T)	<60	Good management of stress	21.81	10.03
Traumatic stress (ARD-T)	11 (62T)	<60	A mild response to stressful situations may be present, but no PTSD symptoms	5.07	4.98
Affective					
Depression (DEP)	17 (51T)	<60	No symptoms	15.56	10.22
Mania (MAN)	7 (63T)	<55	Active, ambitious, or impatient and hostile	26.74	10.59
Paranoid					
Paranoia (PAR)	24 (52T)	<60	Open and tolerant in interpersonal relations	22.49	9.10
Hypervigilance (PAR-H)	12 (52T)	<60	No hypervigilance	11.01	4.04
Persecution (PAR-P)	5 (53T)	<60	No paranoid thoughts	4.03	3.49
Schizophrenia					
Schizophrenia (SCZ)	16 (53T)	<60	No attention-related or relational problems	13.85	8.31
Cluster B					
Borderline (BOR)	23 (54T)	<60	Emotionally stable, able to establish stable relationships	18.88	9.84
Instability affective (BOR-A)	12 (69T)	<60	Some affective instability may be present	5.15	3.52
Negative relationship (BOR-N)	8 (55T)	<60	No negative relations	6.22	3.27
Antisocial (ANT)	10 (46T)	<60	Caring and sympathetic in social relationships, able to control own impulses	13.17	7.92
Egocentrism (ANT-E)	5 (63T)	<70	Slight egocentrism	3.69	3.14
Alcohol and substance					
Alcohol (ALC)	5 (54T)	<60	Absence of problematic alcohol use	3.45	3.86
Drug use (DRG)	6 (62T)	<60	Reported use of drugs or negative experiences related to drug use	2.34	3.08
Treatment scales					
Aggression (AGG)	32 (74T)	<60	Constantly expresses hostility and rage	13.67	7.64
Suicidal thoughts (SUI)	0 (44T)	<60	No suicidal thoughts	2.54	4..32
Stress level (STR)	7 (51T)	<60	Low stress level (stable, serene, and predictable life)	6.62	4.21
Social support (NON)	9 (61T)	<40	Some problems with social support	5.13	3.54
Refusal of treatment (RXR)	20 (60T)	<40	Some tendency to refuse treatment may be present	15.53	4.61
Interpersonal					
Dominance (DOM)	31 (66T)	<35	Self-assured, tends to assume control	22.23	5.42

PAI: Eating Disorder Inventory-3; Patient: Score of the assessed individual; T: T score; Cutoff (T): Threshold above which the trait is significant; Interpretation: Meaning of the score; Normative clinic sample (Pignolo et al. 2018)

Table 3. Defense actions according to the DMRS-SR-30 data

DMRS-SR-30	Patient M	Defense category	Patient M	Defense level	Patient M	Defense mechanism	Patient M
Overall Defensive Functioning (ODF)	3.89	Mature	21.42	Adaptive	21.42	Affiliation	7.14
						Altruism	-
						Anticipation	-
						Humor	7.14
						Self-observation	-
						Sublimation	-
						Suppression	7.14
		Neurotic	17.85	Obsessional	10.71	Isolation affects	3.57
						Intellectualization	7.14
						Undoing	-
				Neurotic	7.14	Displacement	-
						Reaction formation	3.57
						Dissociation	3.57
						Repression	-
		Immature	60.71	Minor image distorting	7.14	Omnipotence	7.14
						Idealization	-
						Devaluation	-
				Disavowal	25.00	Autistic fantasy	10.71
						Projection	-
						Rationalization	7.14
						Deniel	7.14
				Major image distorting	7.14	Splitting object image	-
						Splitting self-image	-
						Projective identification	7.14
				Action	21.42	Acting out	10.71
						Help-rejection complaining	7.14
						Passive aggression	3.57
		Depressive	28.57			-	

*ODF (Overall Defensive Functioning): Overall measure of defense mechanism adaptability

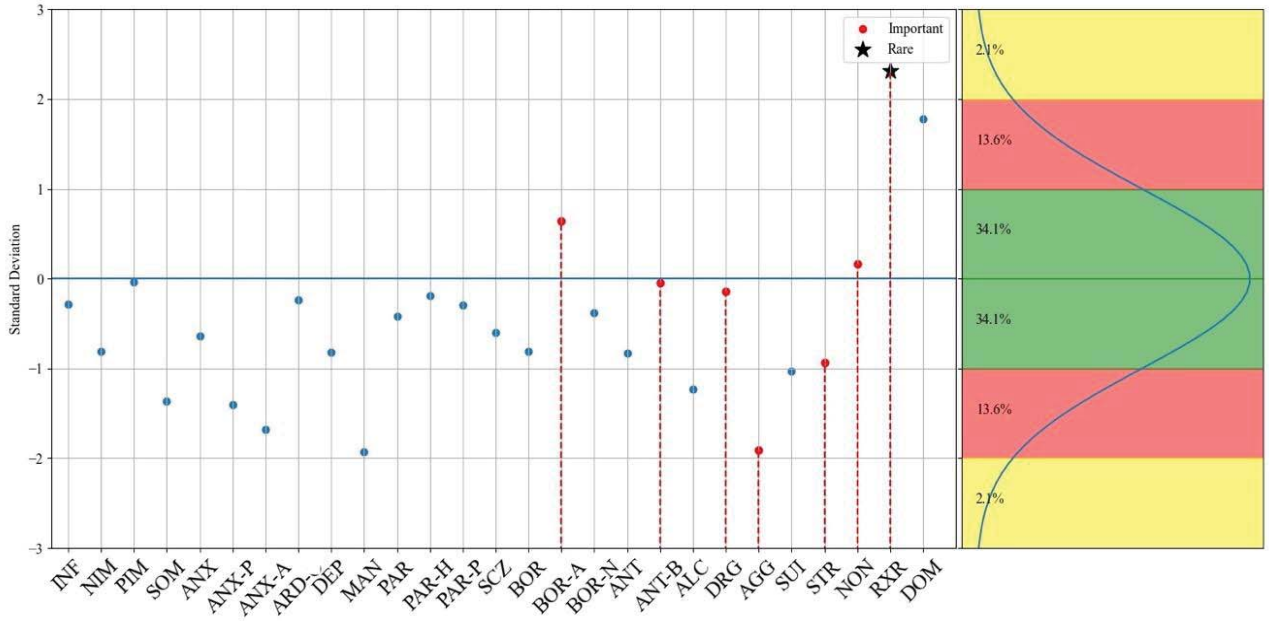

Figure 2. PAI: Z-score

Data showing the defense mechanisms used by the subject are presented in Table 3 (DMRS-SR-30). The results indicate an efficient ODF (3.89), which is based on a combination of mature and immature strategies for managing emotional difficulties. According to Di Giuseppe et al. (2020), the normative non-clinic sample has an average ODF score of 4.91 (SD .44). However, immature mechanisms are dominant (60.71), and depressive defenses are also used (28.57). Among the mature defenses, the subject made use of affiliation humor and suppression; however, she also used neurotic obsessive defenses (isolation of affects and intellectualization), and neurotic defenses (reaction formation and dissociation). Her mental functioning also uses immature defenses, such as minor image distorting (omnipotence), disavowal (autistic fantasy, denial, and rationalization), and acting (acting out, help-rejection complaining, and passive aggression).

The subject obtained average scores in the RFQ_C (4) and RFQ_U (5) subscales, suggesting a hypo-mentalizing mindset, characterized by difficulty in understanding and reflecting on their own and others' mental states. The normative clinical sample data are: RFQ_C (M = 1.48, SD = 1.98); FRQ_U (M = 4.9, SD 3.36) (Fonagy et al. 2016).

DISCUSSION

Integrating clinical and empirical perspectives provides a better understanding of a subject's psychological profile to allow the development of an effective treatment plan and identify predictors of dropout (Porcerelli et al. 2007, Roth & Fonagy 2005).

The methodological approach focuses on the data collection, analysis of real clinical practices, and in-depth analysis of a subject's specific functioning. According to Fonagy and Moran (2011), this enables us to collect specific information on clinical practice and adapt it more specifically to the needs of the subjects.

In line with the literature, the EDI-3 questionnaire showed that the egosyntonic nature of FEDs can increase ambivalence towards change leading the subject to disagree with the assessment outcome and the treatment objectives (Lev Ari et al. 2024). In addition, the psychological traits investigated by EDI-3 suggest general psychological maladjustment, reflecting an inner drive to conform to external expectations, and a strong identification with the professional role, suggesting a pursuit of external perfection that may be an FED driver.

The clinically reported relational difficulties, especially within the subject's family, are supported by high scores on the PA and IA scales of the PAI. Such relational difficulties may impact the subject's ability to maintain an adequate sense of reality, as suggested by the clinical perspective, which is in line with previous studies showing that AN patients suffer in the areas of self-direction, self-awareness, and self-understanding (Jones et al. 2015, Mirabella et al. 2023, Muzi et al. 2021).

The conflict between the private and professional spheres is evident from the clinical perspective and the empirical data, which indicate good stress management skills, although with borderline personality disorder (BPD) traits and tendencies towards hyperactivity and isolation. Such duality may explain poor self-care (ED) and the pressure to maintain an image of professional success to mask any underlying emotional difficulties.

Previous work has shown that emotional and behavioral dysregulation are key factors in AN (Lanzi et al. 2019). Mirabella et al. (2023) explored the association between AN and BPD. In the present case, BPD traits are suggested by the PAI scores in the domains of emotional instability and chaotic relationships, which agree with data from the literature showing that FED patients often use immature defenses and exhibit impulsive behaviors (Kelly et al. 2019; Mirabella et al. 2023). The subject's BPD diagnosis confirms the empirical data, underscoring the importance of assessing personality style in AN patients to develop more targeted therapeutic strategies.

The subject's emotional vulnerability, highlighted by the clinical data, is confirmed by high scores on the PAI scales of interoceptivity and alienation. Treatment resistance, as suggested by CORE-OM scores and the need for control identified by the PAI, suggests that treatments should address these resistances through a gradual and supportive approach, with particular emphasis on fostering internal motivation for change. Our findings confirm those of other studies where patients with AN tend to engage in maladaptive interpersonal behaviors to regulate emotions, avoid confrontation, and manage negative experiences (Mason et al. 2022).

The subject's ODF score is below the normative mean, indicating a predominant use of less adaptive defenses. Significant individual defense scores include immature defenses, including acting out, autistic fantasy, and denial. For instance, the active use of acting out was evident from the frequent reports of abrupt terminations of relationships without explanation or in the engagement in self-destructive behaviors such as eating restriction. Autistic fantasy is another common defense, where the subject retreats into daydreams or unrealistic plans to avoid dealing with real-life problems and responsibilities. Denial is primarily used to reject negative feedback on her eating habits or the severity of her condition, showing a lack of insight into her emotional state. Despite these immature defenses, the subject also utilizes mature

defenses such as affiliation, humor, and suppression, though less frequently. This is illustrated by her occasional ability to seek social support and maintain a positive outlook in some stressful situations, suggesting some capacity for adaptive coping. These adaptive mechanisms can be strengthened through psychological intervention, thereby providing a basis for improving her overall psychological well-being. Overall, the use of complex and immature defense mechanisms contributes to the subject's difficulty in managing emotions and interpersonal relationships, as indicated by high scores in the PA and IA PAI subscales. In summary, the empirical data on defense mechanisms complements the clinical observations, revealing a pattern of complex interplay between immature and mature defenses. These insights provide a comprehensive understanding of the subject's defense patterns and can inform more targeted and effective therapeutic approaches.

The reliance on the denial defense mechanism confirms the subject's lack of insight concerning her inner negative emotions since she only acknowledged anger, which is expressed outwardly as a reactive emotion. Low scores on the reflective function test suggest hypo-mentalizing, characterized by difficulty understanding and reflecting on her own and others' mental states. Overall, these aspects may be predictive of treatment dropout risk (Conversano et al. 2023). In the present case, the highlighted factors indicate that borderline traits related to emotional instability, imamture defense mechanisms, poor mentalization ability, and emotional vulnerability may predict a higher risk of psychological treatment dropout. Future standardization of risk factors for dropout is warranted, starting with the importance of all the factors highlighted here, and hypothesizing profiles of possible responses or dropout/ resistance to treatment in AN patients.

CONCLUSION

The integration of clinical and empirical perspectives highlights the complexity of the patient's psychological profile, emphasizing the need for an integrated psychological approach targeting emotional vulnerabilities, defense mechanisms, and external pressures affecting behavior. A diagnosis of AN together with complex personality traits requires an approach that combines specific interventions for EDs with psychological support strategies, and the management of interpersonal relationships. A complex assessment like the one we proposed is not simply an intellectual exercise but becomes a predictive factor for identifying early dropouts. These findings are consistent with the existing literature and underscore the importance of a holistic and personalized approach to treating eating disorders.

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Contribution of individual authors:

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Methodology: Veronica Raspa.

Original draft preparation; Veronica Raspa & Grazia Pula.

Review and editing: Veronica Raspa, Claudia Mazzeschi, Giulia Menculini, Grazia Pula, Patrizia Moretti.

Project administration: Veronica Raspa.

Supervision: Claudia Mazzeschi & Alfonso Tortorella

All authors have read and agreed to the published version of the manuscript.

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