

Original research

Comparison of Personality Traits and Defensive Styles in Female Students with Avoidant Restrictive Food Intake disorder

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Abstract

Introduction: Obesity and overweight are caused by unhealthy lifestyles, and for this reason, people have become very interested in following a healthy lifestyle. One of the results of this interest is people's adherence to various dietary regimens, which are sometimes closely related to illness and eating disorders, and various factors such as perfectionism, personality traits, defensive styles, and body dissatisfaction can be effective in the development, severity, and type of eating disorder. Therefore, this study was conducted with the aim of Comparison of Personality Traits and Defensive Styles in Female Students with Avoidant Restrictive Food Intake Disorder.

Research Method: In this causal comparative study, 62 students from the Islamic Azad University, Hamedan Branch, who reported having avoidant or restrictive eating disorder, were selected using convenience sampling method in the fall of 2024, and 62 students who did not follow a specific diet and were as similar as possible to the study group in terms of demographic variables were selected as the comparison group. Both groups were asked to respond to the Eysenck Personality Questionnaire (1975) and the Andrews Defense Styles Questionnaire (1993). The data were analyzed using the multivariate analysis of variance statistical method using SPSS version 25 software.

Results: The results of the study showed that the average scores of students with avoidant or restrictive eating disorder were higher than those of other groups of students in the variables of underdeveloped defense styles, neuroticism, and personality traits of neuroticism and extraversion, and they scored lower in the variable of developed defense styles.

Conclusion: Based on the results of this study, it can be said that there is a significant difference between students with avoidant or restrictive eating disorder and other students in defensive styles and personality traits.

Keywords: ARFID, Eating Disorders, Defensive Styles, Personality Traits

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Introduction:

Eating disorders are one of the most common psychosomatic disorders that cause many problems in physical health and mental functioning, and also disrupt the quality of life of the affected person and cause mortality (1). They can cause nutritional disorders by changing the eating pattern and undesirable intake of nutrients and threaten the health of the person (2). Eating disorders are characterized by behaviors such as reduced eating, fasting, overeating, and eating with vomiting and the use of anti-constipation and diuretic drugs (3). These disorders can also lead to malnutrition, osteoporosis, amenorrhea, cardiovascular diseases, and depression (4). The clinical forms of these disorders are anorexia nervosa and bulimia nervosa (5), which have become more common in today's society due to the culture and teachings of the anorexia nervosa press (6).

Avoidant/restrictive eating disorder, a new diagnostic criterion added to the American Psychological Association's fifth edition of the Classification of Disorders, is a disorder in which the individual avoids eating or restricts their food intake to the point that their nutritional needs are not met, resulting in significant weight and energy loss (8). This disorder occurs when individuals refuse to eat simply to make a point or to get what they want (9). Individuals with this disorder are severely impaired by selective eating, restrictive eating, or restrictive eating habits (10). Refusing food is rare and may be a health risk to the child, but not in the same way as avoidant/restrictive eating disorder (11). This disorder is a deliberate behavior to control situations that is also associated with stress, anxiety, or depression (12).

The American Psychiatric Association, Fifth Edition, criteria for avoidant/restrictive eating disorder include: impaired eating (eating), e.g., apparent disinterest in eating or food; refusal to eat because of the sensory properties of food and concern about negative consequences of eating, as evidenced by persistent failure to meet nutritional or energy needs, as evidenced by severe weight loss, significant malnutrition, dependence on parenteral nutrition or nutritional supplements, and severe impairment in psychosocial functioning (13); the disorder cannot be attributed to a lack of available food or to cultural or social norms that prohibit the eating of certain foods (14).

And various factors such as perfectionism, defensive styles, personality traits, and body dissatisfaction can contribute to the development, severity, and type of eating disorder.

Defense mechanisms are automatic regulatory processes that function to reduce cognitive dissonance and minimize sudden changes in internal and external reality by influencing how we perceive threatening events (15) and provide a way for us to come to terms with the inherent unpleasantness of the human condition and the conflict it generates, so that we are not overwhelmed (16).

The methods we employ to come to terms are called defenses (17). We develop our defenses early in life in order to manage the challenges of coming to terms with the unavoidable pleasantness of being human (18).

Freud first coined the concept of defense mechanisms in 1926 (19), and his daughter Anna Freud refined and organized the concept. The first comprehensive and systematic study of defense mechanisms was presented by Anna Freud in 1936 in her book *The Ego and the Mechanisms of Defense* (20). Although defense mechanisms are normal and everyone uses them, if used excessively,

they lead to obsessive, repetitive, and neurotic behavior (21). In the psychoanalytic system, each mental disorder is associated with specific maladaptive defense mechanisms (22), and defenses play an important role in individuals' mental health (23).

Freud considered one's defense style, that is, the frequency of use of defense mechanisms compared to others, to be a key variable for understanding personality, pathology, and the degree of adaptation. This hypothesis has been widely supported by research findings (24).

Empirical evidence has shown that defense mechanisms and styles can be arranged in a hierarchy of adaptation (25). Maladaptive mechanisms and styles are associated with many negative health indicators, such as personality disorders and depression (26).

Based on Vaillant's hierarchical classification of defense mechanisms, 20 mechanisms have been divided into three defense styles: developed, underdeveloped, and neurotic. Developed defense mechanisms are considered normal and effective for adaptive coping styles, while neurotic and underdeveloped defense mechanisms are maladaptive and ineffective coping styles (27).

The characteristics of defense mechanisms are: The ego resorts to a series of defense mechanisms to escape anxiety resulting from the failure to meet the needs of the institution, the fulfillment of which entails punishment and punishment from society and conscience. The common characteristics of all these defense mechanisms include: they are often applied unconsciously. They are usually accompanied by distortion, denial, and transformation of reality and cause self-deception. They have adaptive power and make the individual better adapt to unfavorable factors. Their excessive use is a sign of personality incompatibility (28).

Defense mechanisms are used by all humans and with moderation in their use, a difficult and stressful situation can be temporarily tolerated. The use of defense mechanisms only indicates maladaptiveness when they are used continuously and permanently and the individual does not use the methods of the rational judge (29).

Research has shown that there is a relationship between underdeveloped defense mechanisms and neuroticism (30). On the other hand, psychological variables that play a significant role in the adult tendency to use defense mechanisms are personality traits. The stress susceptibility theory showed how personality, motivational, and environmental factors are involved in personality. Therefore, given that no research was found in Iran or abroad that compared defense mechanisms in different personalities, the present study aimed to compare personality traits and defense styles in female students with avoidant or restrictive eating disorders and girls without dieting.

Research Method:

The method of this study is descriptive of the causal-comparative type. The statistical population consisted of all students studying in the fall of 2024 at the Islamic Azad University, Hamedan Branch, from which 62 students who, according to their statements, had avoidant or restrictive eating disorders were selected using the convenience sampling method, and 62 students who did not follow a specific diet and were as similar as possible to the studied group in terms of demographic variables were selected as the comparison group.

The measurement tools were; Eysenck Personality Questionnaire (1975): It was developed to measure some aspects of personality. Two types of Eysenck personality tests have been presented, one specifically for children aged 7 to 15 and the other for those aged 16 and above, and the latter form was used in the present study. This questionnaire has 90 yes and no questions. In order to determine the validity and reliability of this questionnaire, Eysenck administered it to the same group at two different times and obtained its validity and reliability. The internal reliability coefficient (Cronbach's alpha) for men in the psychotic dimension was $r = 0.78$, extraversion was $r = 0.90$, neuroticism was $r = 0.88$, and for women, $r = 0.76$, $r = 0.85$, and $r = 0.85$, respectively (30). In the Iranian sample, the reliability with a two-month test-retest method was reported as follows: psychosis = $r 0.72$, extraversion = $r 0.92$, and neuroticism = $r 0.89$ (31).

Andrews Defense Styles Questionnaire (1993): The Defense Styles Questionnaire is a 40-item instrument scored on a 9-point Likert scale from (1 completely disagree to 9 completely agree) that measures 20 defense mechanisms according to three defense styles: developed, neurotic, and undeveloped (32). The Defense Styles Questionnaire in Iran was examined and standardized by Heidari Nasb (33) and the results for all subjects were 0.75, 0.73, and 0.74, respectively, which is an indication of the internal consistency of the section for the Iranian form of the Defense Styles Questionnaire.

To analyze the findings, the independent groups t-test (comparison of means) was used using SPSS version 25 software.

Findings:

Descriptive statistics of the variables under study are presented in Table 1.

Table 1: Descriptive statistics of the variables under study by group

Groups	Variables		M	SD	Number
Defense Mechanisms	Underdeveloped	ARFID	108.74	29.31	220
		Normal	78.35	28.09	220
	Developed	ARFID	73.15	20.13	220
		Normal	95.08	24.24	220
	Psychophobic	ARFID	146.12	24.75	220
		Normal	74.01	20.79	220
Personality Traits	Psychosis	ARFID	17.00	3.54	220
		Normal	12.07	4.44	220
	Psychopathy	ARFID	21.19	5.69	220
		Normal	9.27	3.89	220
	Extroversion	ARFID	19.19	5.57	220
		Normal	23.24	4.66	220

In order to compare defense mechanisms and personality traits in ARFID patients and normal individuals, a multivariate analysis of variance test was used. One of the prerequisites for this analysis

is equality of error variances. The results of the Levene test indicated equality of variances. The results of the multivariate analysis of variance indicated a significant difference ($P < 0.01$, $F = 7.25$, Wilks' $\lambda = 0.78$).

Table 2: Results of the analysis of variance test to compare defense mechanisms and personality traits in the two groups

Variables		Sum of squares	df	Mean squares	F	Sig
Defense Mechanism	Underdeveloped/Developed	387.87	1	387.87	5.87	0.089
	Psychophobic/Underdeveloped/Developed	135.09	1	135.09	4.84	0.065
Personality Traits	Psychosis/Psychopathy	89.24	1	89.24	6.94	0.056
	Extroversion/Psychosis	98.87	1	98.87	7.25	0.054
	Psychopathy	76.81	1	76.81	8.29	0.067

As the results of Table 2 show, there is a significant difference between the two groups in all variables.

Discussion and Conclusion:

The aim of the study was to compare personality traits and defense styles in female students with avoidant or restrictive eating disorders. The results of the study showed that those with avoidant/restrictive eating disorders use more immature and neurotic defense mechanisms than normal individuals. Defense mechanisms may play an important role in the pathology and development of various psychiatric disorders. According to psychoanalytic theories, each type of psychopathology is characterized by the use of specific maladaptive defense mechanisms.

Freud's psychoanalytic system has had a huge impact on the theory and practice of psychology and psychiatry, our idea of human nature, and our understanding of personality (25). Psychoanalytic models take as their starting point the idea that we have an inner world that has a powerful influence on how we think, feel, and behave. Our inner world is made up of feelings, memories, beliefs, and fantasies (26).

Freud (34) proposed three systems or levels of consciousness: the conscious, the preconscious, and the unconscious. The conscious mind operates at the surface, and below it is the subconscious mind, which is not in your conscious awareness. There are different depths of the subconscious; some of the content of the subconscious is very easy to access. The unconscious lies below the subconscious and is the repository of mental material that is too distressing to be allowed to enter consciousness, including sexual and violent drives, defenses, and some memories and feelings (35).

Since we form our defenses from early life in order to manage the challenges of adapting to the inevitable pleasantness of being human (36), it plays an important role in personality formation and, according to the psychoanalytic approach, people use specific defense styles when facing stress, which are divided into four groups based on the level of maturity: immature (immature), neurotic, narcissistic and mature (mature) (37). Each of these styles includes specific defense mechanisms, and in people

with mental disorders, the defense style is immature and maladaptive, and in the non-clinical population, the defense style is much more mature. Considering family relationships and interpersonal emotional relationships in families and the impressionability and transmission of emotional pressures, it has an effect on the use of defense mechanisms (38).

In general, in people with mental disorders, defense styles are immature and maladaptive, while defense styles are much more developed in the nonclinical population (22). Although defense mechanisms are normal and everyone uses them, if they are used excessively, they lead to obsessive, repetitive, and neurotic behavior, because we have to expend energy to create and maintain defense mechanisms. The more defensive we are, the less psychic energy we have left to satisfy the impulses of the id. Of course, it is precisely the duty of the ego to bring defense mechanisms to the fore, because it must avoid directly confronting instinctual demands and defending itself against the anxiety that accompanies them (39). Defense mechanisms are, in fact, reality distorters, and the degree of distortion in immature and neurotic defenses is greater than in developed defenses, and the degree of cognitive distortion is inversely related to consciousness, such that the greater the degree of cognitive distortion of a defense, the less consciousness is reduced, and the less effort is made to counter cognitive distortion (40).

Vaillant (41) believes that defense mechanisms automatically function to reduce cognitive dissonance and minimize sudden changes in internal and external reality by influencing how threatening events are perceived; he believes that when emotional and cognitive information is not properly processed, perceived, and evaluated, the organization of emotions and cognitions of the individual will not function optimally, and as a result, the likelihood of using immature mechanisms in stressful situations increases. Since defense mechanisms change our cognition of ourselves, immature defense mechanisms become an obstacle to understanding reality in individuals, denying them the possibility of rational and effective defense, and reducing the individual's capacity for insight and self-discovery. With this description, it was determined in this study that: The highest and lowest percentages of using mechanisms related to the defense mechanism are in neurotic people, which is actually more than twice the score of normal people. The results of this study or the research of Nicole Wagel (42) that people with immature personalities use this defense mechanism more.

Neurotic defenses include false friendship, reaction formation, rationalization and denial. In the study of Jamilian et al. (43), it was shown that people who suffer from emotional distress and dissatisfaction with their personality scored high in the reaction formation and denial mechanisms.

The results of this study showed that people with avoidant/restrictive food disorder scored the lowest in developed defense styles. In fact, developed defense styles play a supportive role in self-esteem, while immature defense styles prevent people from protecting their integrity by distorting themselves excessively and excessively (28). Other results of this study showed that people with avoidant/restrictive food disorder scored high on the neurotic personality scale. As Eysenck (30) showed in his stress susceptibility theory, individuals who score higher on neuroticism respond to environmental stressors with more intense emotional reactions and higher levels of brain arousal; in fact, they are motivated to use risky behaviors in stressful situations to reduce tension and automatic

arousal. It seems that individuals with high levels of neuroticism are less able to control their impulses than others and cope with stress much worse than others, and as a result, when faced with problems, instead of finding a solution to regulate their emotional states and reduce perceived tension, they may resort to risky behaviors. Studies have shown that the neuroticism factor is an indicator of emotional instability. Emotions such as fear, sadness, arousal, anger, and guilt are the basis of this scale. Because negative emotions have a detrimental effect on a person's adjustment, a high score on this factor indicates poor adjustment, especially if the person is under severe psychological stress. However, a high score on this scale does not necessarily indicate a serious mental disorder (30). Eysenck believes that people who score high on this scale are characterized by traits such as nervous, moody, irritable, restless, aggressive, irritable, depressed, anxious, shy, inflexible, and low self-esteem (29). The findings of this study indicate that people with avoidant/restrictive food disorder scored high on the neurotic defense mechanism on the neuroticism scale. The almost heterogeneous sample in terms of age, as well as the available sampling method, which makes it difficult to generalize the results to other groups, and the multi-causality of avoidant/restrictive food disorder. In addition to intra-individual factors, interpersonal and social factors may also contribute to its formation, and these were not addressed in the present study. These are limitations of this study. Accordingly, the researchers suggest that similar research be conducted on different statistical populations and by considering other important risk factors in personality. Given that most people with avoidant/restrictive food disorder are weak in problem-solving ability and coping skills, it is recommended that necessary measures be taken in the field of education on these issues.

Conflict of Interest

There is no conflict of interest in this research and the authors' contributions are listed in the article in the order of their names.

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