

## Depression and Personality Traits

### Depresión y rasgos de personalidad

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#### Abstract:

Temperament is a risk factor for major depressive disorder, more specifically neuroticism or negative emotionality and it seems that higher levels makes the subjects more likely to develop depressive episodes in response to stressful life events. The objective of this review is to establish those personality traits that are most related to depression. From all the articles, seven of them are about the high levels of neuroticism and low levels of extroversion in depressive patients, this for the theory of the five factors. On the other hand, the studies based on the Cloninger theory talk about high levels of damage avoidance and low levels of self-directivity that are related to the presentation of the disorder. Regardless of the theory used, it becomes evident the need to interrogate personality traits in psychiatric and healthy patients, in the latter for the prevention of disorders.

#### Key words:

*Depression; Personality traits; factors; Cloninger Theory*

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#### Resumen:

El temperamento es un factor de riesgo para trastorno depresivo mayor, más específicamente el neuroticismo o emocionalidad negativa y parece que unos niveles más altos de ese rasgo, vuelve a los sujetos más proclives a desarrollar episodios depresivos en respuesta a los acontecimientos vitales estresantes. El objetivo de esta revisión es establecer aquellos rasgos de personalidad que más se relacionan con la presentación de depresión. Del total de artículos se extrajeron 7 artículos que nos hablan de los altos niveles de neuroticismo y bajos niveles de extroversión en los pacientes depresivos, esto para la teoría de los 5 factores, por otro lado los estudios basados en la teoría de Cloninger nos refieren altos niveles de evitación del daño y bajos niveles de auto directividad que se relacionan con la presentación del trastorno. Independientemente de la teoría utilizada, se hace evidente la necesidad de interrogar por rasgos de personalidad en pacientes psiquiátricos y sanos, en estos últimos para la prevención de trastornos.

#### Palabras Clave:

*Depresión, Rasgos de personalidad, factores, Teoría de Cloninger*

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#### INTRODUCTION

According to the World Health Organization (WHO), in its publication in 2017<sup>1</sup>, it is estimated that by that time more than 300 million people worldwide (4.4% of the world population) suffered from depression and that has increased by 18.4% between 2005 and 2015. Although there are effective treatments for this disorder, more than half of those affected worldwide (and more than 90% in many countries) do not receive these treatments.<sup>1</sup> Taking into account the factors that influence the presentation of this disorder, temperament is found as a risk factor to develop this disorder, more specifically neuroticism or negative emotionality, and it seems that higher levels of this trait

makes the subjects more prone to develop depressive episodes in response to stressful life events.<sup>2</sup>

On the other hand, personality traits have not only been associated with the presentation of depression, but also other psychiatric disorders such as anxiety, substance abuse and obsessive-compulsive disorder, as demonstrated in the study conducted by Heinze et al.<sup>3</sup> in medical students of the National Autonomous University of Mexico, where comparing two groups of students (repeaters and non-repeaters) it was found that the group of repeaters presented features of neuroticism and little openness in contrast with the other group. Also, the group of repeaters presented greater psychiatric symptomatology, presenting symptoms of depression, anxiety and obsessive - compulsive disorder.

In the general population it has been seen the association of personality traits with clinical disorders<sup>4</sup>, as they are related to high neuroticism, low scrupulousness, low kindness and low openness to new experiences. This review aims at exposing the personality traits associated with depression considering studies published in the last 10 years, to emphasize the importance of psychotherapeutic management of patients with depression and the importance of addressing the possible basis for the development of the disorder.

## FIVE-FACTOR MODEL

This was the most used model to classify personality traits in the reviewed articles.<sup>6-19</sup> This one was proposed by McCrae and Costa<sup>5</sup>, and identifies five primary factors that correspond to the basic personality traits with their respective opposite trait (Table 1): 1. Cordiality/antagonism, 2. Responsibility/negligence, 3. Extraversion/introversion, 4. Openness to experience, and 5. Neuroticism/emotional stability.<sup>5</sup> The factor neuroticism / emotional stability, is related to the level of anxiety of the individual before a certain stimulation or task; is guided to measure anxiety, depression, intensity of affect and negative emotions, irrational thoughts, mirages and illusions. The extraversion factor is related to sociability, the ability to establish relationships with the group.<sup>5</sup> Openness to experience refers to the degree of attraction to "culture" and "intellectuality", without measuring any kind of intelligence or aptitude; it is intertwined with aspects such as originality, imagination and interest in multiple subjects.

Another dimension described is that of cordiality / antagonism, this refers to the warmth of interpersonal relationships, to the treatment that the subject gives to others; this factor is better defined in its negative pole (antagonism), which has characteristics like sociopathy, avoidance, detachment and rejection of the group. The responsibility/negligence factor is related to the degree of control of impulses, with the scrupulousness and ethics of the individual; it aims at measuring aspects such as self-control, respect for oneself and others, planning and obedience.<sup>5</sup>

All articles in their results agree that personality traits associated with depression, depressive symptoms, or suicidal thoughts are high neuroticism or emotional negativity and low extroversion or emotional positivity.<sup>6-12</sup> In the studies where the follow-up of patients diagnosed with depression, it was found that patients who responded satisfactorily to treatment had high levels of extraversion and openness, compared with the group that did not respond adequately to treatment.<sup>11</sup> In the case of patients who presented chronic symptoms were also found high levels of neuroticism and low levels of extroversion.<sup>12</sup> In older patients (> 52 years old), diagnosed with depression, the same personality traits already described were presented and were also associated with unipolar depression, but not with bipolar depression.<sup>10</sup>

## CLONINGER'S PSYCHOBIOLOGICAL THEORY OF PERSONALITY

The Cloninger's psychobiological theory of personality proposes the existence of two large dimensions of personality (temperament and character)<sup>5</sup>, the temperament, predominantly genetic, is less affected by learning or the cultural context, while the character, is explained by aspects of environmental type, is mediated by learning systems and influenced by culture and education. As a result, through temperament an automatic associative response to emotional stimuli is generated, determining habits and moods, while character generates intentions and voluntary attitudes that are influenced by conscious concepts.<sup>20</sup> About 50% of the variation in temperament among individuals is heritable and stable from childhood to adulthood, while the character matures step by step from childhood to late adulthood.<sup>20</sup>

In this theory the following personality traits are exposed (Table 1): damage avoidance (HA), novelty search (NS), reinforcement dependence (RD), persistence (P), self-transcendence (ST), self-directivity (SD) and cooperativity (C).<sup>5</sup> In the temperament dimension there is the HA sub-dimension, which is related to behavioral inhibition, NS to behavioral activation, RD to behavioral maintenance, and P, last to be included in the temperament dimension, also refers to behavioral maintenance, but in the absence of immediate environmental contingencies.<sup>5</sup> Subdimensions of temperament distinguish personality disorders subtypes, but they do not specify whether a person has a healthy personality or a personality disorder.<sup>21</sup>

Within the dimension of character, the ST subdimension is described as referring to the feelings and affiliations of the individual, such as political or religious preferences; it is related to the contact of the individual with abstract figures, such as nature or a superior being, with creativity and artistic inspiration. The SD refers to the responsibility of the individual in the initiation and organization of the steps towards the achievement of a goal. The C includes social tolerance, empathy, compassion and moral principles.<sup>5</sup> Low or high scores of the subdimensions of the character dimension have been associated with personality disorders. The lowest SD scores showed a strong relationship with the presence of personality disorders. The low score of C was also an independent predictor of all types of personality disorders, while a high ST score suggested a moderate risk of schizotypy and personality disorders of group B.<sup>21</sup>

All the studies that worked with this theory coincide that the greater trait of HA the higher presentation of depression<sup>13-19</sup>, and the majority also coincides with the low presentation of the SD trait in patients with depression.<sup>13-17,19</sup> It is worth emphasizing that because this theory manages the dimension of temperament as predominantly genetic, it is the most used theory in studies with children and adolescents<sup>15,16</sup>, where there are also low levels of other traits like C, P and RD with

depressive disorder, compared to the control group. In the study carried out by Seo et al,<sup>17</sup> the lowest level of SD was found in patients with suicidal behavior, both in those who have attempted suicide at least once in their life and in those who have attempted suicide multiple times, compared to patients with depression without suicidal behavior.

**Table 1. Personality traits\***

Theory		Personality traits
Five-Factor Model <sup>5</sup>		cordiality/antagonism
		responsibility/negligence
		extraversion/introversion
		openness to experience
		neuroticism/emotional stability
Cloninger's Psychobiological Theory of personality <sup>5,21</sup>	Temperament dimension	damage avoidance (HA)
		novelty search (NS)
		reinforcement dependence (RD)
		persistence (P)
	Character dimension	self-transcendence (ST)
		self-directivity (SD)
		cooperativity (C)

\*Classification of personality traits according to each of the presented theories.

### OTHER STUDIES:

Within the search results there are other articles that, although they do not fit in the models presented above, they provide important results for the review, such as articles that refer to self-criticism as a personality trait<sup>22,23</sup>, and that show evidence of positive correlation with the severity of depression and response to treatment, since according to the study carried out by Bulmash et al., patients under depression treatment with high levels of self-criticism associated with stress responded to a lesser extent to the treatment compared to those who had lower levels of self-criticism even under stress.<sup>23</sup>

The study conducted by Domes et al.,<sup>24</sup> which analyzes autistic traits and empathy in patients with chronic depression vs. depressive episodes, found that patients with chronic depression had lower social skills and higher levels of personal stress during social interactions (autistic traits) than those who presented depressive episodes only.

### CONCLUSIONS:

As it can be seen throughout this paper, regardless of the personality trait model used for the study, there is evidence that supports the need to investigate these traits in patients with mood disorders such as depression, in order to provide

comprehensive treatment to the psychiatric patient. It is also important to continue studying these traits in depressive patients or patients with other psychiatric disorders, since despite the existing theories, it is evident the lack of unanimity to classify the traits so they can be used not only in the comprehensive management as mentioned above but also in the prevention of psychiatric pathology.

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