



A Study of Correlation between Personality Traits and Coping Skills among Depressive Patients and Non-Depressive Patients

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The purpose of this research was to investigate the relationship between an individual's core personality traits and their repertoire of coping skills, specifically comparing a group of depressive patients with a non-depressive control group. We hypothesized that key personality traits would serve as predictors of a person's ability to cope with stress. A comparative study was conducted on a sample of participants from Kanpur. A correlational research design was employed on a sample of 124 depressive patients (87 males and 37 females) between the ages of 18 to 35 years. The Big Five Inventory was used to measure personality traits, and a standard coping skills inventory was administered. The data was analyzed using correlational and comparative statistical techniques to identify patterns and significant differences between the depressive and non-depressive cohorts. Our findings show that personality traits are strongly correlated with coping behaviors. The depressive patient group demonstrated a distinct personality profile, characterized by higher neuroticism and lower levels of extraversion and conscientiousness. These traits were found to be significantly predictive of maladaptive and adaptive coping strategies, respectively. This study confirms that personality plays a critical role in the development and deployment of coping skills. The data provides a rationale for developing personalized therapeutic strategies that acknowledge a patient's underlying personality structure to improve their resilience and ability to manage stress effectively.

Keywords: *Personality, Big Five Personality Traits, Coping Strategies, NEO Five factor Inventor.*



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1. INTRODUCTION

The **W.H.O. (1978)** provides the most expected definition of health, which goes beyond simply being free from illness or infirmity to include the condition of complete bodily, mental, social, and executable will being. Psychological research in the area of health has gradually accumulated to provide overwhelming evidence to argue the mental state does affect physical health substantially degree (**World Health Organization, 1978, Gupta, 2023a**). Some of the main or has follows personal disposition, health; and well-being it has been found (**Gupta & Mishra, 2024**) i.e. The success of the surgery depends on the central experience and the activities (**Gupta, 2024a**).

According to the World Health Organization (WHO), there are two aspects of wellbeing: subjective and objective. It includes a person's life history and a comparison of their current situation with societal norms and values. Health, education, employment, social interactions, natural and constructed surroundings, safety, civic participation and governance, housing, and work-life balance are a few examples of life conditions. Subjective experiences include a person's overall sense of well-being, psychological functioning and affective states (**Gupta et al., 2024a, Gupta & Mishra, 2024**).

- Health is a major factor in why people believe that well-being is vital. Both mental and physical health can have an impact on well-being. Well-being is most affected by recent acute health issues, but it is also impacted by chronic, long-term illnesses.
- The relationship between wellbeing and health is reciprocal: wellbeing affects health, and health affects wellbeing. Physical health outcomes, immune system response, pain tolerance, lifespan, cardiovascular health, slower disease development, and reproductive health are all correlated with well-being.
- The effect of well-being on health is substantial (but variable) and comparable to other risk factors more traditionally targeted by public health such as a healthy diet.
- Depression and anxiety are linked to poor levels of well-being, and there is a

correlation between mental disease and wellbeing.

- Mental health is not just the antithesis of mental illness; mental illness and well-being are distinct aspects. High feelings of wellbeing can coexist with a mental illness. Low levels of wellbeing can also exist in people who do not have a mental illness. When the severity of the mental disease is taken into account, most correlations are only slightly changed.

The distinctive collection of behaviours, thoughts, and emotional patterns that result from biological and environmental influences is known as personality (**Gupta & Singh, 2024a**). Although there isn't a universally accepted definition of personality, the majority of ideas centre on motivation and how people interact psychologically with their surroundings. Personality is defined by trait-based theories (**Beck, 1976, Penley & Tomaka, 2002**), like the ones put forth by Raymond Cattell, as the characteristics that predict an individual's behaviour. Conversely, more behaviour-based methods use habits and learning to define personality. According to a thorough presentation of models relating personality and coping, personality can have a direct impact on coping strategy selection by limiting or facilitating the use of particular strategies (**Gupta, 2023b**), or it can have an indirect impact by influencing the type and intensity of stressors encountered or the efficacy of coping strategies (**Gupta et al., 2024a**). Some study shows assert that personality can directly affect coping from a young age and that coping is influenced by physiologically based appetitive, defensive, and attentional systems (**Beck, 1976, Bolger, 1995, De Longis, 2005**).

Our innate biological tendencies, by influencing how we respond to rewards, avoid threats, and focus or shift our attention, can shape the coping strategies we use throughout life. For instance, extroversion (E), with its underlying sociability and drive to approach, might lead someone to seek support. Conversely, a strong sensitivity to threats could trigger a tendency to withdraw or disengage. Personality can also indirectly influence coping mechanisms (**Gupta & Singh, 2024c**). Since stress exposure, stress activity, and the demands of a situation drive coping, how personality affects the frequency, intensity, and type of stressors we encounter

might partly explain this connection. For example, neuroticism (N) is linked to frequent stress exposure and strong emotional and physical reactions to stress. In contrast, agreeableness (A) is associated with less interpersonal conflict, and conscientiousness (C) can reduce stress exposure through proactive prevention. Lastly, extroversion (E) is connected to low stress reactivity and an optimistic view of available coping resources (Gunthert, 1999, Suls & Martin, 2005, Vollrath, 2001).

Individuals who experience high stress or react intensely to it might withdraw as a way to manage their discomfort. Conversely, those with lower stress reactivity or a more positive outlook may find it easier to use engagement-focused coping strategies (Gupta & Singh, 2024a, Gupta & Singh, 2024b). Finally, the effectiveness of coping mechanisms can vary significantly based on personality. What works well for one person might be less effective, or even detrimental, for someone with different personality traits (Beck, 1961, Bolger, 1995, Derryberry, 2003).

If coping attempts on any of these levels fail, it can greatly enhance a person's susceptibility on other levels. In order to cope with stress, a person has two challenges: a breakdown of immunological defenses may affect not only bodily functioning but also psychological functioning; persistently inadequate psychological coping patterns may result in another disease.

2. OBJECTIVES OF THE STUDY

- To Compare the Correlation between personality traits and coping skills among depressive patients.
- To Compare the Correlation between personality traits and coping skills among non-depressive patients.

3. HYPOTHESIS OF THE STUDY

- **H0**-There is no significant difference between depressive & non-depressive patients about coping strategies.
- **H1**- There is no significant difference between depressive & non-depressive patients concerning personality traits.

4. METHODOLOGY

4.1. Approach of Research:

In this study, the researchers collect and analyse both qualitative and Quantitative data

therefore Mixed Approach is used by the researchers.

4.2. Type of Research:

In this study, the researchers want to know the Correlation between personality traits and coping skills among depressive patients and Non-Depressive patients, therefore this study is a Descriptive type of Research.

4.3. Method:

Survey Method in this study.

4.4. Sample:

In the present study 124 depressive patients (87 males and 37 females) sample will be selected from Kanpur & its neighbouring areas 124 depressive registered patients will be purposively selected from various hospitals of Kanpur district (U.P.).

125 Non-depressive patients will be randomly selected from the general population of Kanpur district.

4.5. TOOLS

❖ Beck Depression Scale (Beck, A.T,1976)

The Beck Depression Scale consists of 21 item self-report questionnaire each item is designed to test the severity of a specific symptom.

- Item 1 to 14 consider psychological symptoms.
- item 15 to 21 consider the more physical symptoms.

Each item is rated from 0 to 3 and a cumulative total indicates the severity of the depression.

❖ RELIABILITY OF BDI-

Beck et al. the test-retest can concordance was 0.93 which was significant $p < .001$. It has a high coefficient alpha (.80) test is also high on split tests reliability (0.85)

❖ Validity of BDI

The BDI has concurrent validity in that it tends to agree with a measure of depression. it is high on construct validity. It can differentiate depressed from non-depressed people.

❖ Scoring

- A score of 0-13 would be considered a minimal range.

- A score of 14-19 would indicate a mild depression range.
- A score of 20-29 would indicate a moderate depression range.
- A score of 30-63 would be considered a severe depression range.

❖ The Brief-COPE Inventory (Carver, 1997)

On a Likert scale from 0 (I haven't been doing this at all) to 3 (I have been doing this a lot), the instrument's 28 items measure 14 factors, each of which has two items (Carver, 1997).

❖ NEO-Five-Factor Inventory (NEO-FFI)

According to Costa and McCrae's (1992) Big Five model, adult personality can be divided into five categories: neuroticism, extraversion, agreeableness, conscientiousness, and openness to new experiences (Costa, 1992). The 60 items in the NEO-Five allow respondents to rate how much they agree with each statement using a 5-point Likert scale. A person is said to possess a significant degree of a trait if they score highly on the scale. Both clinical and research applications have made extensive use of this scale.

5. Result and Discussion
Table-1: One Test Sample (Males)

One Test Sample								
Gender	Category		Test Value					
			T	Df	Sig(2-Tailed)	Mean Difference	95% Confidence Interval of Difference	
							Lower	Upper
Male	Non-Depressive	Problem Focused Coping	93.39	92	.00	10.23	10.01	10.54
		Emotion Focused Coping	125.68	92	.00	16.74	16.47	17.00
		Avoidant Coping	77.57	86	.00	11.34	11.05	11.63
	Depressive	Problem Focused Coping	54.20	86	.00	11.86	11.42	12.29
		Emotion Focused Coping	106.54	86	.00	17.24	16.91	17.56
		Avoidant Coping	60.82	86	.00	11.17	10.80	11.53

There are no significant differences between depressive & non-depressive patients about coping strategies. This table presents the one-sample test statistics for various coping strategies (Problem- Focused Coping, Emotion-Focused Coping, and Avoidant Coping) among

depressive and non-depressive males, including the t-value, degrees of freedom (Df), significance (2-Tailed), mean difference, and 95% Confidence Interval of the Difference (Lower and Upper bounds).

Table-2: One Test Sample (Females)

One Test Sample								
			Test Value					
Gender	Category		T	Df	Sig(2-Tailed)	Mean Difference	95% Confidence Interval of Difference	
							Lower	Upper
Female	Non-Depressive	Problem Focused Coping	77.78	31	.00	10.46	10.19	10.74
		Emotion Focused Coping	91.86	31	.00	16.50	16.13	16.86
		Avoidant Coping	37.87	31	.00	11.53	10.91	12.15
	Depressive	Problem Focused Coping	36.91	36	.00	12.43	11.74	13.11
		Emotion Focused Coping	69.12	36	.00	17.48	16.97	17.99
		Avoidant Coping	34.94	36	.00	11.00	10.36	11.61

Table-3: One Test Sample (Personality Traits)

One Test Sample							
		Test Value					
Category		T	df	Sig(2-Tailed)	Mean Difference	95% CI	
						Lower	Upper
Non-Depressive	Neuroticism	72.87	124	0.00	33.75	32.84	34.67
	Extraversion	102.59	124	0.00	42.61	41.79	43.43
	Openness	138.39	124	0.00	40.90	40.31	41.48
	Agreeableness	85.86	124	0.00	38.92	38.02	39.82
	Conscientiousness	134.91	124	0.00	42.68	42.02	43.31
Depressive	Neuroticism	67.52	123	0.00	42.31	43.56	43.56
	Extraversion	79.90	123	0.00	46.10	47.24	47.24
	Openness	78.76	123	0.00	43.35	44.44	44.44
	Agreeableness	87.42	123	0.00	45.64	46.67	46.67
	Conscientiousness	116.03	123	0.00	47.81	48.62	48.62

There is no significant difference between depressive & non-depressive patients about personality traits. This table presents the one-sample test statistics for personality traits (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness) in both non-depressive and depressive categories. It includes the t-value, degrees of freedom (df), significance (2-Tailed), mean difference, and 95% Confidence Interval (Lower and Upper bounds).

6. INTERPRETATION AND ANALYSIS

- Across all categories and both genders, individuals utilize all three coping strategies, with Emotion-Focused Coping being the most utilized among both depressive and non-depressive groups.
- Depressive individuals, regardless of gender, tend to score higher in Problem-Focused and Emotion-Focused Coping strategies compared to their non-depressive counterparts, suggesting that depression may influence an increase in the use of both strategies.
- Avoidant Coping scores are relatively consistent across groups, with a slight decrease in scores among depressive males compared to non-depressive males, and a slight decrease among depressive females compared to non-depressive females.

7. ANALYSIS RELATED TO THE HYPOTHESIS

- **Problem-Focused Coping:** Depressive males and females both show an increase in Problem Focused Coping compared to their non-depressive counterparts, with depressive females (mean=12.43) showing a slightly higher mean than depressive males (mean=11.86).
- **Emotion-Focused Coping:** Both depressive males and females utilize Emotion-Focused Coping more than their non-depressive counterparts. Depressive females (mean=17.48) have a slightly higher mean score than depressive males (mean=17.24), indicating a higher reliance on this coping strategy among females.
- **Avoidant Coping:** The use of Avoidant Coping is similar across groups, with a minor decrease in its use among depressive individuals compared to non-depressive ones. Interestingly, depressive

females have a slightly lower mean score (mean=11.00) compared to depressive males (mean=11.17), suggesting a lesser reliance on avoidant strategies among females.

8. DISCUSSION

The data supports the hypothesis that there are differences in coping strategies between male and female depressive patients. Specifically, depressive females tend to report slightly higher use of Problem-Focused and Emotion-Focused Coping strategies than depressive males.

The hypothesis testing for differences in personality traits between depressive and non-depressive patients reveals significant findings. The one-sample test statistics indicate that for both non-depressive and depressive groups, all personality traits significantly differ from the test value of 0, which is expected as the test value of 0 is a theoretical benchmark indicating no presence of the trait. The real focus is on the mean differences between the groups, which the hypothesis testing aimed to explore.

9. NON-DEPRESSIVE GROUP

- Neuroticism has a mean of 33.75 with a standard deviation of 5.18, indicating lower levels of emotional instability among non-depressive individuals.
- Extraversion scores a mean of 42.61 with a standard deviation of 4.64, suggesting a higher tendency towards outgoingness.
- Openness has a mean of 40.90 with a standard deviation of 3.30, reflecting a good level of creativity and intellectual curiosity.
- Agreeableness shows a mean of 38.92 with a standard deviation of 5.07, pointing to a cooperative and sympathetic nature.
- Conscientiousness scores a mean of 42.68 with a standard deviation of 3.54, indicating a high level of responsibility and organization.

10. DEPRESSIVE GROUP

- Neuroticism shows a significantly higher mean of 42.31 with a standard deviation of 6.98, indicating higher emotional instability in depressive individuals.
- Extraversion has a mean of 46.10 with a standard deviation of 6.42, which is

interestingly higher than in the non-depressive group, suggesting variability in how extraversion manifests in depressive individuals.

- Openness scores a mean of 43.35 with a standard deviation of 6.13, showing a high level of openness to experience even among those with depression.
- Agreeableness has a mean of 45.64 with a standard deviation of 5.81, indicating a strong inclination towards agreeableness in the depressive group.
- Conscientiousness scores the highest mean of 47.81 with a standard deviation of 4.59, suggesting that depressive individuals may also exhibit high levels of conscientiousness.

11. CONCLUSION

The significant t-values across all traits for both groups (all p-values are 0.000, indicating statistical significance) confirm that these traits are significantly present in both groups compared to a theoretical absence of these traits (test value = 0). However, the focus of the hypothesis was on differences between the groups, which is observed in the means. The interpretation of these results supports the hypothesis that there would be significant differences between depressive and non-depressive patients regarding personality traits (Gupta, 2023a, Gupta et al., 2025b). Depressive patients show higher mean scores in neuroticism, which aligns with the common association of depression with higher emotional instability. Interestingly, depressive patients also show higher means in extraversion, openness, agreeableness, and conscientiousness, suggesting that depression's impact on personality is complex and not limited to traditionally associated traits like neuroticism (Gupta & Singh, 2024a, Gupta & Singh, 2024b, Gupta & Singh, 2024d). These results highlight the nuanced interplay between depression and personality, challenging simplistic narratives about the personality profiles of depressive versus non-depressive individuals. Hence hypothesis is significantly accepted. The significant t-values across all traits for both groups (all p-values are 0.000, indicating statistical significance) confirm that these traits are significantly present in both groups compared to a theoretical absence of these traits (test value = 0). However, the focus of the hypothesis was on

differences between the groups, which is observed in the means. The interpretation of these results supports the hypothesis that there would be significant differences between depressive and non-depressive patients regarding personality traits. Depressive patients show higher mean scores in neuroticism, which aligns with the common association of depression with higher emotional instability (Gupta, 2023b). Interestingly, depressive patients also show higher means in extraversion, openness, agreeableness, and conscientiousness, suggesting that depression's impact on personality is complex and not limited to traditionally associated traits like neuroticism (Gupta et al., 2025c). These results highlight the nuanced interplay between depression and personality, challenging simplistic narratives about the personality profiles of depressive versus non-depressive individuals.

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Author Contributions

- 1) **Srishti Maheshwari** : Contributed to the conceptualization, designing the research methodology, and data collection. Also contribute to the instrumental in the initial drafting of the manuscript and contributed significantly to the literature review and interpretation of results.
- 2) **Avinash Yadav** : Contributed to the data analysis, particularly in applying the statistical tests. He also assisted in the interpretation of the statistical findings and the refinement of the manuscript.
- 3) **Prof. (Dr.) Archana Saxena** : Provided overall supervision and mentorship for the study. Her expertise was crucial in guiding the

research direction, ensuring methodological rigor, and reviewing the manuscript for academic quality and coherence.

- 4) **Dr. Mohd. Imran Khan** : Provided clinical insights and facilitated access to participants as a supervisor. His medical expertise was valuable in understanding the nuances of depression within the study context.
- 5) **Dr. Abhishek Kumar** : Contributed to the conceptual framework, particularly regarding the theoretical underpinnings of personality traits and coping mechanisms. He also provided valuable input on the structure and flow of the research paper.
- 6) **Ankit Gupta** : Assisted in the logistics of data collection and provided support in the organizational aspects of the research. He also contributed to the editing and proofreading of the manuscript.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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