

Personality and Its Predictive Power for Adjustment Challenges and Decision Regret among Doctors

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Abstract: The current study was designed to examine personality as a predictor of adjustment problems and decisional regret among doctors. It was proposed that personality traits would be associated with adjustment problems and decisional regret among doctors. Thus, a survey research design was utilized in this study. Purposive sampling was employed to select a sample of 200 private clinics and government clinics. Hospitals of Lahore and Gujrat districts of Punjab, Pakistan. The Big Five Inventory–2 Short Form (BFI–2–S) by John and Soto (2015), Scale of Adjustment for Adults by Naz, Bano, & Leghari (2018), and the Decision Regret Scale by Brehaut et al. (2003) were used for data collection. Correlation, regression, and neural network analyses were performed, using SPSS Version 27 for statistical analysis. The findings revealed that adjustment problems were significantly and negatively correlated with extraversion, agreeableness, conscientiousness, and openness–mindedness. Conversely, adjustment problems were positively correlated with negative emotionality. Decision regret, however, did not show any statistically significant correlation with adjustment problems or any of the Big Five personality traits. Regression analysis revealed that among the predictors, agreeableness and extraversion negatively predicted adjustment problems. Negative emotionality emerged as a significant positive predictor. Conscientiousness and open–mindedness to experience were not significant predictors of adjustment problems. The results of this study contribute to the comprehension of these phenomena among Pakistani doctors, underscoring Personality as the predictor of Adjustment Problems and Decisional Regret.

Keywords: Personality Traits, Adjustment Problems, Decisional Regret, Doctors

Introduction

As per the American Medical Association (AMA), doctors are given the mandate of encouraging health, relieving suffering, and maintaining ethical practice in the treatment of patients (American Medical Association, 2023). The mandate of physicians goes beyond curing illness; they also engage in preventive care, inform patients about the maintenance of their health, and make contributions to public health. Moreover, the medical education is aimed at teaching clinical knowledge, and it also prepares doctors for ethical decision–making, communication, and patient–centred care (Epstein & Hundert, 2002). According to Beauchamp & Childress (2019), healthcare professionals must adhere to professional ethics and legal obligations, such as confidentiality, informed consent, and patient autonomy.

Doctors, or physicians, are the individuals who are responsible for the diagnosis of diseases, come up with treatment plans, prescribe medications, and monitor patients on a continuing basis. Physicians provide consultation and clinical practice and are trained in one of many specialties, such as surgery, internal medicine, or pediatrics (WHO, 2006). The decision–making and clinical judgement of healthcare professionals (HCPs) affect patient outcomes directly and also contribute to outcomes of the health services provided (Boelen & Woollard, 2009). Furthermore, physicians often function as team leaders in multi–disciplinary team environments, directing the activity of nurses, therapists, paramedics, etc. in complex care situations.

Healthcare professionals (HCPs) are the individuals who often rely upon physicians and their associated programs for instructions. There should be a healthy relationship between healthcare professionals and physicians as it promotes safety and quality care, whereas a strained or ineffective

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relationship can threaten these goals. (Foerster et al., 2018). Their quick response and interventions (e.g., CPR, defibrillation, airway Management, and trauma care) often mean the difference between life and death (Bigham et al., 2013). Psychiatric illnesses are especially widespread among health care workers, especially physicians and emergency staff, due to unique and sustained stressors associated with their work environment. Those stressors include long work hours, quick decision-making under pressure, exposure to trauma, and emotional desensitization (Shanafelt et al., 2015). Numerous studies have highlighted the fact that physicians and healthcare professionals (HCPs) demonstrate high levels of depression, anxiety, post-traumatic stress disorder (PTSD), substance use disorder, and burnout. Mata et al. (2015) conducted a meta-analysis, which indicated that 29% of resident physicians were experiencing depression or depressive symptoms, and other research has indicated that more than 20% of health care workers may experience PTSD in their lifetime (Petrie et al., 2018). Personality traits can be a cause of many malfunctions and numerous psychological issues in doctors. Among all the psychological problems, adjustment problems and decisional regret are mainly focused on in the current study.

Personality traits capture individuals' typical patterns of thoughts, feelings, and behaviors. Personality traits imply consistency and stability in someone who scores high on a particular trait. Extraversion should be sociable in various situations and in the long run. Therefore, trait psychology is based on the belief that individuals vary with respect to where they are on a set of stable trait dimensions that endure over time and across situations (Diener & Lucas, 2019). Personality can also be defined as the constant patterns of thoughts, feelings, motivations, and behaviors that are consistently represented by an individual over time and across situations. It represents the unique and relatively stable characteristics that differentiate one individual from another (Feist, Feist, & Roberts, 2018).

Understanding the development of personality requires knowledge of a complex, multifaceted process, and it is affected by the interaction between biological factors and environmental factors. Heritability is an important part of personality development, as personality traits can be genetically influenced. Twin and other types of adoption studies have demonstrated that a large proportion of personality traits can be attributed to heritability (Bouchard & McGue, 2003). Psychosocial factors from early childhood, parenting, cultural influences, and various life events will strongly influence the development of personality (McCrae & Costa, 2008). Cognitive skills and emotional management also interact in ways that affect how personality develops over time, especially in adolescence and adult development (Roberts et al., 2008).

While personality is dimensional, some models categorize individuals into types: Type A persons are competitive, impatient, and aggressive, while Type B individuals are relaxed and easy-going (Friedman & Rosenman, 1974). Myers-Briggs Type Indicator (MBTI): The MBTI, developed from Jungian theory, categorizes personality into 16 different personality types, based on four dichotomies (e.g., Introversion vs. Extraversion) (Myers & Briggs Foundation, 2021). Big five traits (OCEAN) include Openness: Imaginative, curious; Conscientiousness: Organized, dependable; Extraversion: Outgoing, energetic; Agreeableness: Kind, sympathetic; and Neuroticism: Anxious, moody (McCrae & Costa, 1999). Psychoanalytic theory is presented as the major approach that views personality in terms of unconscious drives and motivations, and how things from our childhood influence current behaviour. Freud believed that personality consists of three parts - the id, the ego, and the superego (Freud, 1923). Trait theory focuses on how certain stable traits are fundamentally important and determine patterns of human behaviour. The Big Five Personality Traits - Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (OCEAN) are the most widely accepted personality model (McCrae & Costa, 1999). Humanistic theory stresses the growth of individuals, the need for self-actualization, and the function of the self. Personality evolves in response to consciously attempting to grow as a person (Maslow, 1943; Rogers, 1951). Behavioral and social learning theories stress the contribution of learning and environment to personality achievement through the development of reinforcement and observational learning (Bandura, 1977). Biological and evolutionary theories consider some of the genetic, neurobiological, and evolutionary bases of personality traits (Buss, 1991).

These personality traits have an effect on the adjustment of doctors. Adjustment can be defined in terms of symptoms that include anxiety, depression, and conduct, which are considered to be subtypes of Adjustment Disorder (AD) in which emotional and behavioral responses to identifiable stressors lead to

clinically significant distress and/or functional impairment. These subtypes are described in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) (American Psychiatric Association, 2022). Adjustment problems, which can occur in response to identifiable life stressors, are a set of emotional or behavioral reactions, such as divorce, job loss, academic failure, moving, or health concerns. If these reactions become adequately intense, chronic, or interfere with day-to-day functioning, they may be classified as Adjustment Disorder (AD), which is a formal diagnosis recognized in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) (APA, 2022).

Adjustment disorders can significantly impact functioning in many areas of life. Those with adjustment problems with depressed mood may experience ongoing sadness, low self-esteem, and low energy, thoughts of suicide (O'Donnell et al., 2016). Those with anxiety symptoms may worry excessively, have physical symptoms (e.g., heart racing, muscle tension), and display avoidance behaviours (Zelviene & Kazlauskas, 2018). Adjustment problems with disturbance of conduct can lead to social conflict, aggression, defiance, and legal problems, particularly in adolescents (Casey et al., 2013). Emotional instability and irritability can impact interpersonal relationships and lead to withdrawal or increased dependency. Declines in performance at school or work can occur due to poor concentration, absenteeism, or behaviours (Maercker et al., 2013). Disciplinary action or termination from employment can increase stress and dysfunction.

Personality may also compromise the decision-making power of doctors. Decision regret can be defined as experiencing negative emotional responses that arise from realizing, or believing, that a different choice would have led to a better outcome (Brehaut et al., 2003). In clinical contexts, decision regret follows diagnostic errors, incorrect treatment, or delays in treatment for emergencies. Regret can occur in both doctors and healthcare professionals with perceived, or real, patient harm that does not align with expectations or their training. (Brehaut et al., 2003). Doctors, particularly specialists in high-risk specialties such as surgery and emergency medicine, are faced with making particularly complicated decisions. In medicine, regrettable situations can emerge frequently based on the fault of diagnosis, premature closure, or the inability to make a decision when uncertain. Turner and Resnick (2015) highlight how clinicians with a "maximizing" cognitive style – defined as the continual search for the best possible outcome – experience more regret after a suboptimal or uncertain decision was made.

In the practice of healthcare, the medical professionals (doctors and their staff) make very vital decisions that directly affect patients on the individual level, local, and global levels. The healthcare professionals are expected to make precise and calculated decisions with limited information, knowledge, and resources. To have clarity with decision making in healthcare, it is important to familiarize oneself with the definitions in medical decision making. (Masic, 2022). The doctors and healthcare workers generally work in fast-paced, high-pressure environments requiring urgent decision-making in real time with incomplete or unclear information. Clinical decision-making and reasoning can be affected by medical knowledge, situational awareness, patient cues, and environmental factors (Elstein & Schwarz, 2002). A unique aspect of pre-hospital settings for healthcare professionals is that they make decisions in real time, usually with limited equipment or resources. This makes decision-making imperative in patient care under extremely dynamic systems. Jensen et al. (2019) found that HCPs were making urgent treatment decisions within the context of trauma cases and cardiac events by, at times, reevaluating their decision while engaged and utilizing both analytical thinking and intuition. The decisions are not only rational – they are shaped by cognitive biases, affective state, and stress. For instance, it has been shown that doctors under high cognitive load or pressure are more likely to take heuristics or shortcuts to take medications and make decisions, which adds to diagnostic mistakes (Croskerry, 2009). Similarly, healthcare workers who work in emergency scenarios are significantly affected by adrenaline and situational pressures, which shape judgment, especially in new and ethically challenging circumstances (Lundgren et al., 2017).

Healthcare professionals also often work in uncontrolled, high-stress environments. In a high-stakes decision-making environment, healthcare workers evaluate triage, transport, and interventions with little information and under time pressures. Jensen et al. (2019) include healthcare workers who are highly susceptible to decisional regret, particularly when outcomes fall outside of protocols or when patients

deteriorate post-handover. They often bear the emotional weight from adverse events, particularly in pediatric and trauma cases. The prevalence of decision regret is related to stress, moral injury, and job dissatisfaction among doctors and healthcare professionals. It can lead to anxiety and depression (Schwappach & Boluarte, 2009), as well as avoidance of certain clinical risks. This phenomenon not only harms a provider's mental health, but it has the potential to negatively impact patient outcomes by encouraging risk-averse or overly-cautious patterns of practice. Croskerry (2009) stressed the cognitive debiasing and emotional influences around decision-making to limit regret and improve clinical reasoning. Decision regret is a negative cognitive-emotional reaction that occurs whenever people consider that another choice would have led to a better outcome (Zeelenberg & Pieters, 2007). In psychology, decision regret involves the interplay of personality, emotion regulation, cognition, social context, and situational factors. Some of the elements of personality impact the likelihood and intensity of decision regret. Neuroticism, a tendency to have negative emotional experiences, is positively related to regret. Those high in neuroticism are more likely to ruminate about decisions and suffer emotional distress after making decisions (Schwartz et al., 2002). Perfectionism will worsen the experience of regret as expectations are unrealistic and intolerant of imperfect outcomes (Flett & Hewitt, 2002). High conscientiousness and optimism can protect people from decision regret as they are more likely to make decisions based on rational arguments and accept outcomes (Sweeny & Vohs, 2012).

Rationale

Our research will address the gap in the literature by investigating how certain personality characteristics affect the psychological adjustment of doctors and whether personality also influences the extent of regret an individual experiences after making clinical decisions. By improving our understanding of these relationships, we could initiate important preventative mental health approaches, such as individualised psychological intervention, personality-specific stress-management training, and decision aiding. These strategies would mitigate risk not only by improving the well-being of individual doctors but also by improving the quality of medical care provided to patients and reducing medical errors (West et al., 2006).

Main Objectives

There is a significant relationship between personality traits, adjustment problems, and decision regret. To predict the personality effect on adjustment problems and decision regret among doctors.

Methodology

The present study employed a survey research approach. Personality as the predictor of adjustment problems and decisional regret among doctors was studied.

The population of the study included adult doctors living in Lahore and Gujrat, Punjab, Pakistan. The target population consisted of both genders involved in making decisions in their daily life. The doctors from private clinics and the government. Hospitals were targeted as they are involved in making critical decisions in healthcare.

Purposive sampling, a non-probability technique, was used to select doctors intentionally based on their relevance to the study. A list of eligible doctors from hospitals and clinics in Lahore and Gujrat was compiled, and professionals actively working in healthcare were chosen to ensure representation across cities. Specific hospital areas suitable for the study were identified, and participants were selected accordingly.

The inclusion criteria were adult doctors of both genders with over one year of experience, while doctors with less than one year of experience, limited decision-making roles, or severe physical/mental health issues were excluded. Selected hospitals included Trauma Centre Lalamusa, The Children's Hospital Lahore, Govt. Maternity Hospital Gujrat, and Aziz Bhatti Shaheed Teaching Hospital, Gujrat (N=200).

For this research, the measurement tools included an informed consent, a socio-demographic form, and three standardized questionnaires, detailed as follows: The consent form outlined the objectives of the study, justification, and assured participants of the privacy and confidentiality of their personal information. The 30-item personality questionnaire by Soto and John (2015) assessed the Big Five traits

with good reliability: Extraversion ($\alpha = 0.75$), Agreeableness ($\alpha = 0.74$), Conscientiousness ($\alpha = 0.77$), Negative Emotionality ($\alpha = 0.77$), and Open-Mindedness ($\alpha = 0.70$). The 48-item Adjustment Scale for Adults, rated on a 3-point Likert scale, demonstrated high reliability ($\alpha = 0.938$) for assessing depression, anxiety, and conduct problems (Naz, Bano, & Leghari, 2018). The 5-item Decision Regret Scale, rated on a 5-point Likert scale, showed good reliability ($\alpha = 0.81$) for assessing post-decision distress, as developed by Brehaut et al. (2003).

The research adhered to a structured process with all the requirements followed, including the permissions, informed consent, and data was collected from healthcare professionals in Lahore and Gujrat with questionnaires and standardised scales. For the most part, participants followed the researchers' lead online and in person, where the researchers were able to provide support and explicit instructions that allowed for the ethical collection of data.

Data was computed, analyzed, interpreted, and displayed in tabular and graphical form using Statistical Package for Social Sciences version 27 (SPSS-27). The predictability and relationship among the variables were determined by regression, correlation, neural networks, and frequency distribution.

Results and Interpretation

This section of the study provides a statistical viewpoint on the relationships between variables. Statistical Package for the Social Sciences (SPSS) Version 27 was used to employ statistical analysis of the data.

Demographic Characteristics of the Sample (N= 200)

Demographics, showing a majority of male (62.5%), married (69.5%), middle-class (91.5%) doctors aged 25–34 (46%) with 1–9 years of experience (65%), mainly pediatricians (25%), and most working 40–49 hours weekly (37.5%).

Table 1

Correlation between Personality Traits, Adjustment Problems, and Decisional Regret Among Healthcare Professionals (N= 200)

Variable	1	2	3	4	5	6	7
1. Adjustment	—						
2. Decisional regret	.08	—					
3. Extraversion	-.40**	-.07	—				
4. Agreeableness	-.55**	-.07	.39**	—			
5. Conscientiousness	-.36**	-.12	.15*	.47**	—		
6. Negative Emotionality	.47**	.10	-.31**	-.42**	-.31**	—	
7. Open-Mindedness	-.28**	-.07	.27**	.30**	.20**	-.33**	—

Adjustment problems were negatively correlated with extraversion ($r = -.40$), agreeableness ($r = -.55$), conscientiousness ($r = -.36$), and openness ($r = -.28$), positively correlated with negative emotionality ($r = .47$), while decision regret showed no significant correlations (all $p > .05$).

Table 2

Multiple Regression Analysis Predicting Adjustment Problems from Big Five Personality Traits (N= 200)

Predictor	B	SE	β	t	p	95% CI for B
(Constant)	116.772	11.230	—	10.398	.000	[94.632, 138.912]
Extraversion	-0.880	0.303	-0.179	-2.904	.004	[-1.477, -0.283]
Agreeableness	-1.238	0.269	-0.323	-4.604	.000	[-1.768, -0.708]
Conscientiousness	-0.391	0.268	-0.093	-1.458	.147	[-0.918, 0.136]
Negative Emotionality	0.926	0.243	0.243	3.802	.000	[0.446, 1.406]
Open-Mindedness	-0.168	0.326	-0.031	-0.516	.607	[-0.811, 0.475]

The regression model significantly predicted adjustment problems, explaining 40.6% of the variance ($R^2 = .406$, $F(5, 194) = 26.467$, $p < .001$). Significant predictors included agreeableness ($\beta = -0.323$, $p < .001$),

extraversion ($\beta = -0.179, p = .004$), and negative emotionality ($\beta = 0.243, p < .001$), while conscientiousness ($\beta = -0.093, p = .147$) and open-mindedness ($\beta = -0.031, p = .607$) were not significant.

Table 3
Model Summary

R	R ²	Adjusted R ²	F	p	Std. Error of Estimate
0.637	0.406	0.390	26.467	.000	10.78476

The regression model significantly predicted adjustment problems, explaining 40.6% of the variance ($F = 26.467, p < .001$). Among the Big Five traits, agreeableness, extraversion, and negative emotionality were significant predictors, while conscientiousness and open-mindedness were not.

Table 4
Multiple Regression Analysis Predicting Decision Regret from Big Five Personality Traits (N= 20)

Predictor	B	SE	β	t	p	95% CI (Lower–Upper)
(Constant)	16.413	2.049	—	8.010	.000	12.368 – 20.458
Extraversion	-0.025	0.055	-0.036	-0.456	.649	-0.133 – 0.084
Agreeableness	0.017	0.049	0.031	0.345	.730	-0.080 – 0.114
Conscientiousness	-0.059	0.049	-0.099	-1.213	.227	-0.156 – 0.037
Negative Emotionality	0.032	0.044	0.059	0.715	.475	-0.054 – 0.119
Open-Mindedness	-0.025	0.059	-0.033	-0.426	.670	-0.141 – 0.091

None of the Big Five personality traits significantly predicted decision regret, as shown by a non-significant overall regression model ($F(5, 194) = 0.793, p = .556, R^2 = .020, \text{Adjusted } R^2 = -.005$), with all predictors having p-values $> .05$ and 95% confidence intervals including zero.

Table 5
Model Summary

R	R ²	Adjusted R ²	F	p	Std. Error
.142	.020	-0.005	0.793	.556	1.96787

Agreeableness ($\beta = -.323, p < .001$), extraversion ($\beta = -.179, p = .004$), and negative emotionality ($\beta = .243, p < .001$) significantly predicted adjustment problems, with the model explaining 40.6% of the variance ($F(5, 194) = 26.467, p < .001, R^2 = .406$).

Discussion

The current research was done with the purpose of exploring variables, i.e., personality, adjustment problems, and decisional regret among doctors, which will be a worthwhile addition to the present body of scientific literature. The research method that we used in relation to our research question was a survey research design, which made it easy to find the relationship and prediction among these research variables. The predictor for this research was personality traits, while adjustment problems and decisional regret were dependent variables. Personality is made up of the consistent patterns of thought, feeling, and actions that are uniquely identifiable between individuals, as well as the ways in which individuals adapt to the world. Personality can be represented by consistent characteristics that dictate how a person behaves in reaction to the different situations in life over time, and across variable contexts (Pervin & John, 2001). Characteristics that are representative of personality are relatively fixed and are thought to emerge from genetic, biological, or environmental interactions. Adjustment is a fluctuating psychological process by which individuals try to balance their internal needs with the external demands placed on them (Taylor, 2011). Adjustment problems can occur when coping responses are insufficient or the external demands felt by individuals are overwhelming. Common signs of difficulty with adjustment are anxiety, irritability, withdrawal, and decline in academic or social functioning (Compas et al., 2001). Decisional regret refers to the negative cognitive and emotional response that follows when an individual thinks an alternative choice

could have led to a better outcome. It is usually accompanied by feelings of self-blame, disappointment, and distress following a decision identified as suboptimal or harmful in hindsight (Brehaut et al., 2003).

The objective of this study was to assess the personality predicting adjustment problems and decision regret in doctors. First, the model established a significant association between personality traits and adjustment problems, with agreeableness ($\beta = -.323$, $p < .001$), extraversion ($\beta = -.179$, $p = .004$), and negative emotionality ($\beta = .243$, $p < .001$) found as significant predictors accounting for 40.6% of the variance ($F(5, 194) = 26.467$, $p < .001$, $R^2 = .406$), and consistent with prior literature that found greater levels of both agreeableness and extraversion were related to more positive psychological adjustment, while high negative emotionality was related to greater emotional difficulty (McCrae & Costa, 1999; Ozer & Benet-Martínez, 2006). In contrast, none of the Big Five traits accounted for decision regret, as the model was non-significant ($F(5, 194) = 0.793$, $p = .556$, $R^2 = .020$), and therefore personality may not account for differences in decision regret across health care professionals as previously identified by Sweeny and Vohs (2012); therefore, it would be reasonable to conclude that decision regret is motivated more by contextual/situational factors rather than individual dispositions.

Conclusion

The present research explored personality as the predictor of adjustment problems and decisional regret, adding to the current body of scientific literature. Personality and adjustment problems are negatively linked to each other, and there is no relationship between decision regret, adjustment problems, and personality traits. Our findings from regression analyses affirmed that among the predictors, agreeableness significantly and negatively predicted adjustment problems, extraversion was a significant negative predictor, Negative emotionality emerged as a significant positive predictor, and conscientiousness and open-mindedness to experience were not significant predictors of adjustment problems in the model. No predictive relationship between personality and decisional regret was demonstrated; the findings were obtained from indigenous people, so it should be understood within the context of Pakistani society.

Recommendations

The study recommends integrating personality assessments in recruitment, providing tailored support systems, and conducting future longitudinal research to explore mediators like coping and emotional intelligence in the link between personality, adjustment, and decision regret.

Limitations

This study's limited geographic scope and cross-sectional design constrain generalizability and causal inference, highlighting the need for future longitudinal research across diverse cultural contexts.

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