Sosyal Bilgiler Eğitimi Araştırmaları Dergisi

2024:15 (3), 317-347

Predicting Moral Intelligence: An Examination of the Influence of the Five Major Personality Factors among Students at the World Islamic Sciences and Education University

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Abstract

The primary objective of this study was to examine the five major personality factors and assess the extent of moral intelligence among students at the World Islamic Sciences University. Additionally, the research aimed to identify the predictive capacity of the five major personality factors on moral intelligence. The study involved a sample of 665 students from the World Islamic Sciences University. To measure these variables, scales were developed for both the five major personality factors and moral intelligence. The study findings revealed that conscientious vigilance emerged as one of the predominant factors among the students. Furthermore, the overall level of moral intelligence was determined to be of a moderate degree. The findings further demonstrated that personality factors, including neuroticism, conscientiousness, kindness, and openness to experience, collectively played a significant role in explaining the variations in moral intelligence levels. Notably, the study revealed statistically significant differences in the neurotic factor and moral intelligence. However, no statistically significant differences, at the 0.05 significance level, were observed in other personality factors (extroversion, openness to experience, conscientiousness, kindness) based on the gender variable. As a recommendation, the study emphasized the importance of enhancing students' personalities and enriching their knowledge and experiences. It suggested that university deans and student affairs staff should organize lectures aimed at fostering the development of desired personal traits. These initiatives would contribute to instilling values and ethical standards, thereby nurturing creative and ethical young leaders.

Keywords: Moral intelligence, personality, students, university

Introduction

The exploration of personality factors stands as a crucial domain within psychology, given their profound impact and influence on various variables. There is an immediate and imperative need to discern the personal traits and characteristics that shape

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individuals' cognitive processes, behaviors, and interactions with their surroundings (Schredl & Göritz, 2020).

The rapid changes and life challenges of the current era have contributed to imposing a different reality on university youth, in terms of the nature of their personal characteristics and moral behaviors. Research shows that "Classroom experience may have a profound effect on learners' views of themselves, their place in the world and most importantly their role as global citizens" (Bulut & Arikan, 2015, p. 19). Thus, the relationship between personal traits and moral components is a basic requirement in determining the parameters of normal behavior and achieving psychological health as confirmed by Yablovi et al. (2016). The model of the five major factors in personality serves as a pivotal framework for interpreting the multifaceted nature of personality. It stands as a crucial reference point, providing a scientific foundation for understanding individual differences across various dimensions of personality. These dimensions include factors outlined by Hadziahmetovic et al. (2023).

- 1. Neuroticism: Encompassing emotional aspects such as anxiety, fear, pessimism, constant sadness, anger, guilt, indecisiveness, and irritability (De Read, 2000).
- 2. Extroversion: Governing the extent to which an individual experiences satisfaction and happiness; an extraverted person is characterized by love for life and sociability (Hadziahmetovic et al., 2023).
- 3. Openness to Experiences: Signifying a passion for the novel, including traits such as flexibility, temperateness, creativity, imagination, and curiosity (Zhang, 2006).
- 4. Agreeability: Encompassing humility, kindness, and a helpful disposition (Kalshoven et al., 2011).
- 5- Conscientious: Reflecting a commitment to performing tasks efficiently and effectively, a drive for achievement, and the maintenance of self-control (Hadziahmetovic et al., 2023).

Research problem

The university period represents a crucial transitional stage in students' lives, wherein distinct personality traits become more evident, shaping their responses to various life situations. Personality, observable through behaviors in diverse life domains, assumes a pivotal and influential role in psychological, social, and moral development (Hingartner et al., 2020). This study aims to delve into the pressures associated with the university period and the escalating economic, social, and technological transformations that are likely to profoundly impact students' personalities. Consequently, these changes are expected to manifest in their behaviors and moral values. The investigation will scrutinize the extent to which students uphold humanitarian principles and assume moral responsibility for their actions, irrespective of negative influences such as university violence, theft, intolerance, and other immoral behaviors.

Study questions:

The study will help to identify the predictive capacity of the five major personality factors on moral intelligence through the following questions:

Q1: Which five major personality factors are most commonly observed among university students?

Q2: What is the extent of moral intelligence among students at the University of Islamic Sciences?

Q3: How significantly do the five major personality factors contribute to predicting moral intelligence?

Q4: Are there statistically significant differences at the significance level ($\alpha \le 0.05$) between males and females in the five major factors in personality and moral intelligence?

The importance of this study emanates from recognizing the pivotal role played by the five major factors in personality in shaping individuals' personalities and influencing their cognitive, social, and moral development. Given the myriad variables, developments, and life pressures encountered by university students, there is an urgent

need to underscore the moral and value aspects of their development. By shedding light on these dimensions, the study aims to provide valuable insights that can guide educational institutions in designing targeted guidance programs. These programs have the potential to assist students in comprehending their personal characteristics, channeling their creative energies, fostering ethical behaviors, and garnering support for their personal growth, ultimately benefiting both the individual and society at large. Thus, the study serves as a valuable resource for institutions aiming to enhance the holistic development of their students.

Research Objectives

- 1- Identifying the five most prevalent personality factors among study subjects.
- 2- Assessing the level of moral intelligence among students.
- 3- Evaluating the extent to which the five major factors contribute to predicting moral intelligence.
- 4- Detection of the effect of the gender variable on the five major factors in personality and moral intelligence in study subjects.

Literature Review

Moral Intelligence

Moral growth holds significance in the broader context of human development due to its intimate connection with social, cognitive, and emotional growth, as well as its correlation with personality traits. The concept of moral intelligence emerges as a pivotal variable in comprehending and interpreting human behavior, encapsulating various principles and values such as honesty, moral responsibility, and conscience (Karabey, 2022). Moral intelligence denotes an individual's possession of moral convictions that drive them toward ethical behavior and self-regulation (Panahi, 2022). Furthermore, it encompasses the ability to apply humanitarian principles to personal actions and discern between right and wrong (Lennick & Kiel, 2006). Moral intelligence transcends mere possession of values; it is also evaluated by the individual's capacity to implement and enact these values in their actions (Kanoğlu, 2019; Yakut & Yakut, 2021). The foundation of the moral intelligence concept lies in a deep-seated

belief in teachings, values, and a commitment to ethical principles of behavior. This encompasses various dimensions, including empathy (acknowledging others' pain), conscience (discerning the right path and appropriate behavior), self-control (the ability to regulate and adapt to life choices), respect (appreciating others and behaving decently), tolerance (respecting others' rights regardless of their beliefs and behavior), and fairness (acting rationally, honestly, and justly) (Areshtanab et al., 2022; Mohagheghi et al., 2021). Research has also indicated the effect of media on young people's moral growth while "Our media lives are then embedded within various sociohistorical and socio-cultural frameworks which provide the background for our moral beliefs and reasoning" (Pigeron, 2012, p. 16).

The findings revealed that the level of moral intelligence was average, and that there is a positive relationship between moral intelligence, self-compassion and self-efficacy as in Nobahar et al. (2022) study. Additionally, Yablovi et al., (2016) study found positive correlation between personality factors and the moral element. This was also confirmed by the study conducted by Mohagheghi et al. (2021), to predict moral behavior, moral intelligence and personality traits, where the results concluded that openness to experience is one of the factors that predict moral intelligence.

Certainly, moral intelligence includes the moral ability to control oneself and the actual application in life situations of the moral principles, and foundations on which the individual relies through his distinction between right and wrong (Prasetiawan & Barida, 2018). The importance of moral intelligence is that it gives the individual moral immunity and self-immunity, that reflects positively on his psychological health and increases his ability to adapt to life changes (Ashokan, 2019).

The study conducted by Amiri et al. (2023) found that moral intelligence is affected by the cultural context of societies, and personality development depends on the cognitive, moral, and emotional levels possessed by the individual. Moral intelligence also contributes to enhancing the ability to learn, make appropriate decisions, and meet spiritual requirements. Accordingly, moral intelligence means possessing moral convictions that enable us to control ourselves, understand the feelings of others, bear full responsibility for our actions, be able to apply human principles to individual goals and values, and treat others with love and respect (Alinejad et al., 2023). A study Beiranvand and Yaghoobi (2024) found that personality factors, It plays an important

role in predicting moral intelligence, and moral intelligence is one of the determinants of individuals' personality, attitudes, and behaviors. The study conducted by Smillie et al. (2020) found that there is a strong, unique relationship between personality factors and moral intelligence. In contrast, Rastegari and Rastegar (2022) assert that a complementary relationship between personality factors and moral intelligence, as the personal and moral components have a fundamental role in achieving higher levels of self-satisfaction and cognitive, emotional, and behavioral development.

The five major factors of personality:

The literature consistently suggests that the positive adaptation of students to university life is intricately linked to their characteristics and skills at the commencement of their university education. Gorgol et al. (2023) highlight the positive association between religiousness and the awakening of conscience, life satisfaction, psychological wellbeing, and the refinement of personality traits. Additionally, Xie and Xie (2023) reported that individuals with a heightened sense of conscience exhibit a more robust reaction to unethical behavior. In contrast, Schunk and Trommsdorff (2023) assert that a higher neurotic factor is connected to a lower level of life satisfaction, increased psychological loneliness, and distrust of others. Furthermore, Furnham and Chen (2023) contributed to the understanding of personality factors by demonstrating their predictive power for self-efficacy, encompassing neuroticism, conscience, openness, and extraversion. Gender differences are explored in studies by Gashi et al. (2022) and Silva et al. (2022), indicating that women are more likely to experience symptoms of neuroticism and anxiety compared to men. The prevalence of neuroticism in their study members is associated with emotional instability and depression, emphasizing the role of personality traits in contributing to the development of pathological symptoms.

The study by Gupta and Wani (2018) found no statistically significant differences in the five major personality factors attributed to the gender variable. This result differed with the study of Jones et al. (2021), Which concluded that females scored the highest on the neurotic factor .Moreover, the extroversion is one of the factors most capable of predicting subjective well-being, as it is positively related to a sense of happiness, accomplishment, and the ability to give (Zahi et al., 2013). Additionally, Riaz (2018)

confirmed that the factor of alertness of conscience is linked to achieving selfdiscipline, commitment to performing duties, ability to work, continuity, and adherence to morals and values.

The study by Jamaludin et al., (2020) confirmed that individuals who enjoy a high degree of acceptability are confident, cooperative, and have a wide network of social relationships. Openness to experience indicates the extent to which individuals are creative, have passion and desire to renew activities and interests, and have future visions, perceptions, and ambitions. They prefer innovation in ideas, and have clear interests in art, literature, and aesthetics (Zhang, 2006). In contrast, research Shannon and David (2021) found that neuroticism is associated with states of frustration, shyness, helplessness, inability to make decisions, impulsivity, high levels of anxiety and stress, low self-concept.

While some studies by Jones et al. (2021), Rath et al. (2021), and Shatnawi (2019), showed that people who excelled academically had higher results on the conscientious vigilance factor. This suggests that conscientious vigilance is positively associated with better performance, meaning that they are committed to their plans. Conversely, neuroticism was an indicator of poor performance and lesser achievement. The findings suggest that Conscientious vigilance was the strongest predictor of academic performance.

Therefore, the justification of this study was based on the limited previous studies that investigated the predictive ability of the study variables, as well as the scientific basis based on the idea that the five major factors of personality, with moral intelligence, can increase understanding of the importance of providing psychological and social services to students through the design of guidance and preventive programs and plans. This study will contribute to deepening the concepts of moral intelligence and its impact on the lives of students through counseling centers in universities. Providing cultural, intellectual, political, artistic, sports and guided activities that enhance students' understanding of themselves and the nature of their personalities' characteristics, thus forming an integrated and balanced personality for university students.

Methodology

Design

This study is based on the use of the Correlative descriptive approach, being the most appropriate to achieve the study objectives. This approach was used to review the most important literature related to the five major factors in personality and moral intelligence. Also goes beyond simply collecting descriptive data about The phenomenon involves analyzing, linking, and interpreting this data, classifying it, measuring it, and studying the predictive ability (Ary et al., 2004).

Study population:

Students of the World Islamic Sciences University for the academic year 2023, numbering (7165) according to the statistics of the Admission and Registration Department at the university distributed as follows in Table1

Table 1Members of the study population by Gender Variable

Variable and its levels	Number
Males	3169
Females	3996
Total	7165

Study Sample

The study sample consisted of 665 students registered in the 2023 academic year at the World Islamic Sciences and Education University (W.I.S.E) in the city of Amman, Jordan distributed as follows in Table 2. They were selected using the available method, Prior to participation all individuals provided electronic informed consent. Written approval for the study was obtained from W.I.S.E. The selection of study sample was

made aligning with the research objectives of examining and determining the extent to which the five major factors contribute to the prediction of moral intelligence.

Table 2Sample Members by Gender Variable

Variable and its levels	Number	Percentage
Males	250	37.6
Females	415	62.4
Total sample	665	100%

Data Collection Tools

The scale assessing the five major factors in personality comprises 30 items distributed across five fundamental factors. Drawing inspiration from previous studies such as Gorgol et al. (2023), Furnham & Chen (2023), and Shatnawi (2019), the scale was developed. Evaluation of the scale involved the input of 10 experts from Jordanian universities in the fields of psychology, measurement, evaluation, and counseling, In order to ensure the correctness of the linguistic formulation, its accuracy, the clarity of the items. The adoption of each scale item was contingent upon an agreement threshold of 80% among the experts. The study sample is characterized by being from one culture, so cultural validity was not applied.

To ensure the validity of the scale, the correlation coefficient of each item with the total score of the respective dimension was calculated, as depicted in Table 3.

 Table 3

 Values of the correlation coefficients of each item with the dimension

Dimension	N	Items	Correlation Coefficient
Neuroticism	1	I feel inferior to others.	0.453 **
	2	I am a moody person.	0.666 **
	3	My behavior and emotions are childish.	0.609 **
	4	I get angry for the smallest and simplest reasons.	0.749 **
	5	I can maintain my calm in difficult situations.	0.508**
	6	I speak with others confidently and without hesitation.	0.432 **
Extraversion	7	I am a happy person in my life.	0. 673**
	8	I enjoy talking with others.	0.674*
	9	Make sure to attend family events.	0.610 **

	10	I prefer doing activities alone.	0.522 **
	11	I feel pessimistic most of the time.	0.558 **
	12	I am an active person with a passion for life and a lover of it.	0. 703**
Openness to	13	I feel pleasure when reading poems.	0.563 **
experience	14	Always look for new and enjoyable experiences.	0.682 **
•	15	Try new and strange foods.	0.558**
	16	I prefer a routine life.	0.391 **
	17	I have an interest in and passion for following new events around	0.527 **
		me.	
	18	I refuse to deal with experiences that are new to my culture.	0.453**
Conscientiousness	19	I strive to be distinguished in any work I do.	0.536 **
	20	I feel remorseful when I commit any unacceptable act.	0.452**
	21	My goals in life are clear and organized.	0.679 **
	22	I rely on others to accomplish my tasks and duties.	0.546 **
	23	I feel that my life has no meaning or value.	0.591 **
	24	I complete all my work with complete order, precision.	0.641 **
Agreeableness	25	I am a social person.	0.619 **
	26	I accept others easily.	0.631 *
	27	Some people think that I am arrogant.	0.601 **
	28	I have doubts about the intentions of others.	0.524 **
	29	I take into account the feelings of others and respect them.	0.395 **
	30	I believe that I am a person loved by others.	0.561 **

Notably, values in Table 3 ranged between 0.391 and 0.749, indicating that the scale effectively measures the five major personality factors.

A multi-group confirmatory factor analysis (confirmatory factor analysis) was constructed of archival responses generated from (211) reliable students from the study population on the hypothetical practical model of measurement using (AMOS) software. Fully verified student responses to the experimental practical model. Conformity indicators were selected for analysis as in table (4).

Table 4 *Confirmatory factor analysis indicators to measure the five major factors.*

Index name	Index Value	Criteria of Index
χ^2	478.459	smallest
df	395	-
χ^2/df	1.21	<3
RMSEA	0.032	< 0.08
TLI	0.960	>0.85
CFI	0.963	>0.85
HOELTER CN	195	>75

Table 4 presents One of the indicators of conformity showed that the model is consistent with the students' responses, as the ratio of the Chi index to the degree of freedom (χ^2/df) increased 1.21, which is a value less than 2 according to (Ullman, 2001). The value of the root mean square error (RMSEA) was 0.032, which is less than 0.08 according to (Wan, 2002). The value of the equivalent index (CFI) was 0.963, a value greater than 0.85. The sample size is appropriate through the European Union Hoelter

Index (195) and the reward value is 75 (Garson, 2009). Therefore, the factorial validity of the Big Five factor measurement was verified.

Scale stability: Table 5 presents the stability degrees by scale dimensions.

Table 5The value of the stability coefficient by the method of (Cronbach alpha) for the dimensions of the scale of the five major factors in personality

Dimension	Value of the (Cronbach alpha)
Neuroticism (1-6 items)	0.597
Extraversion (7-12 items)	0.676
Openness to experience(13-18 items)	0.466
Conscientiousness(19-24 items)	0.591
Agreeableness(25-30 items)	0.550

Table 5 illustrates that the internal consistency coefficients of the elements within the scale ranged from 0.676 to 0.466. These values suggest that the degrees of reliability for the scale are acceptable. To enhance clarity and interpretation, the scale underwent a reversal process for negative paragraphs. Subsequently, a total score was computed for each participant across the five major factors of personality. This was achieved by summing the scores obtained by the participant on the paragraphs corresponding to each factor. To assess the level of average scores on the factors, a categorization system was employed using the following criteria: 14 and under (low), 14–22 (medium), and 22 and above (high).

Moral Intelligence Scale

The moral intelligence scale comprises 30 items designed to measure six fundamental dimensions: Self-adjusting, justice, empathy, respect, liberality, and conscience. The development of the scale was inspired by previous studies, especially the works of Mohagheghi et al. (2021) and Nobahar et al. (2022). the scale was developed. Evaluation of the scale involved the input of 10 experts in the fields of psychology from Jordanian universities. To verify the stability and validity of the moral intelligence scale, the correlation coefficients of the total score for each dimension with the total score of moral intelligence were calculated. These coefficients ranged between 0.710 and 0.176, and all were statistically significant. Additionally, the correlation coefficient

of each paragraph within the scale was computed with the total score of its respective dimension, as outlined in Table 6.

 Table 6

 Evaluating the correlation coefficients of each item with the dimension

Dimension	N	Items	Correlation
			Coefficient
Self-adjusting	1	I can control myself easily.	0.805 **
	2	I control myself when angry.	0.812 **
	3	I control my behavior in difficult situations.	0.780 **
	4	I am a person who gets stressed quickly.	0.607 **
	5	Interrupt others while they are talking.	0.547 **
Justice	6	I like others to treat me the way I treat them.	0.381**
	7	I value others by their giving and achievements.	0.437**
	8	I respect the rights of others.	0.514 *
	9	Make judgments about others.	0.584 **
	10	I favor a group of individuals based on their degree of kinship with me.	0.621 **
empathy	11	Make sure others share their social events.	0.540**
	12	Care about the feelings of others.	0.648 **
	13	I sympathize with others.	0.601**
	14	I deal with others according to my interests.	0.551**
	15	I feel the sadness and pain of others.	0.332 **
Respect	16	I ignore the mistakes of others towards me.	0.586 **
	17	I easily accept other people's apologies to me.	0.728 **
	18	I accept openness to different cultures.	0.468 **
	19	I have difficulty accepting people from multiple cultures.	0.468**
	20	I do not forgive those who wronged me.	0.678**
liberality	21	I accept and respect the points of view of others.	0.581 **
	22	Adhere to the university's instructions.	0.549 **
	23	I respect traditions different from my culture.	0.579 **
	24	I am curious to know the affairs and lives of others.	0.643**
	25	I find it difficult to accept the beliefs of others.	0.609**
Conscience	26	I feel guilty about my wrong behavior.	0.558 *
	27	I take responsibility for my mistakes.	0.661**
	28	I have clear moral principles.	0.558**
	29	I find it difficult to apologize to those I have wronged.	0. 674**
	30	My mistakes are caused by others.	0.659 **

^{**} Function at significance level 0.01 * Function at significance 0.05

Table 6 shows that the correlation values for the moral intelligence scale ranged between 0.332 and 0.812. These values affirm that the scale effectively measures moral intelligence.

A multi-group confirmatory factor analysis (CFA: confirmatory factor analysis) was constructed as depicted in Table 7.

 Table 7

 Confirmatory factor analysis indicators to measure the moral intelligence

Index name	Index Value	Criteria of Index
χ^2	464.541	smallest
df	390	-
χ^2/df	1.191	<3
RMSEA	0.030	< 0.08
TLI	0.957	>0.85
CFI	0.962	>0.85
HOELTER	198	>75

From the fit indicators, it is clear that the model matches the students' responses, as the value of the Chi-square ratio index to the degree of freedom (χ^2/df) reached 1.191, which is a value less than 2. The value of the root mean square error (RMSEA) was 0.030, which is less than 0.08 according to (Wan, 2002). The value of the comparative fit index (CFI) was 0.962, which is greater than 0.85. The sample size is appropriate through the Hoelter Helter index, which reached a value of 198, which is a value greater than 75 according to (Garson, 2009). Thus, the global validity of the moral intelligence scale was verified.

In terms of stability, the overall stability coefficient for the entire scale was calculated as 0.700, determined through the internal consistency method "Cronbach alpha." These stability coefficients are deemed acceptable, indicating a reliable measure of moral intelligence. A Likert five-point scale was utilized, and a total score was computed for each participant on the moral intelligence scale, ranging between 30 and 150. Subsequently, an average score was determined for each participant, allowing for the categorization of participants based on the following criteria: 11 and less (Low), 12-18 (Medium), and 18.4 and more (High).

Data Collection

Following the acquisition of written approval to conduct the research, I initiated communication with the relevant authorities within the university to coordinate the implementation of the study. An electronic questionnaire was meticulously crafted, and in collaboration with faculty members, the questionnaire was distributed electronically after securing the approval of all participants. Each participant completed the questionnaire, providing responses to items on two scales: the Big Five personality factors and moral intelligence. Both scales utilized a 5-point scale system, ranging from

1 (never) to 5 (all the time). The responses were systematically downloaded, verified, and recorded for subsequent analysis.

Data Analysis

The study aims to predict moral intelligence: studying the influence of the five major factors on personality among students of the International Islamic Sciences University. Based on this, the following hypotheses can be made:

Hypothesis 1: The five major personality factors do not contribute to moral intelligence.

Hypothesis 2: There are no differences at the significance level (0.05) in the personality factors due to the gender variable

Hypothesis 3: There are no differences at the significance level (0.05) in the level of moral intelligence due to the gender variable.

The goal of these hypotheses is to examine the different elements that influence the prediction of moral intelligence. SPSS was used to calculate the study results. Descriptive statistics, including means and standard deviations, determined answers for the first and second research questions. The third question was addressed using multiple linear regression analysis with the stepwise method. For the fourth question, multiple analyses of variance examined the gender variable. After verifying multiple variance analysis assumptions as well as multiple linear regression analysis assumptions.

Ethical considerations:

The study was approved by the Research Ethical Committee. Data privacy of participants was protected. Prior to participation all individuals provided informed consent, Adhering with ethical standards helps uphold the rights of participants in the study.

Findings

Q1: What are the major personality factors observed in university students? This study extracted average scores, standard deviations, ranks, and levels for each of the five major personality factors. Table 8 presents a comprehensive overview of these findings.

Table 8Descriptive statistics for the Five Major Factors of Personality

Factors	Arithmetic mean	Standard deviation	Rank	Level
Neuroticism	13.9564	3.68523	5	low
Extraversion	22.3068	3.88801	3	High
Openness to experience	21.7143	3.76167	4	medium
Conscientiousness	25.1910	3.23263	1	High
Agreeableness	22.8556	3.45848	2	High

Table 8 highlights that the "Conscientiousness" factor secured the top position with a high level, accompanied by an arithmetic mean of (25.19), then followed in succession by (Agreeableness, Extraversion, and Openness to Experience), and in last place the factor of neuroticism with a low level and an arithmetic average (13.95). This result means that students are more committed to their goals and less anxious and stressed.

Q2: To what extent does moral intelligence manifest among students at the University of Islamic Sciences? The results Table 9.

Table 9 *Arithmetic means and standard deviations of the estimates of the study sample members on the dimensions of the moral intelligence scale and the total scale*

Dimension number	Dimension	Arithmetic mean	Standard deviation	Rank	Level
1	Self-adjusting	16.8045	3.81275	5	Medium
2	Justice	13.5609	2.25143	6	Medium
3	Empathy	19.4391	2.56769	3	High
4	Respect	18.0391	3.23967	4	Medium
5	Liberality	20.5654	2.74833	2	High
6	Conscience	21.4647	2.82614	1	High
	Overall Scale	109.8737	9.82094		Medium

Table 9 presents that the level of moral intelligence came on average, and it came after conscience which scored first, The justice dimension came in last place with an arithmetic mean (13.56). This result explains that students have the ability to understand what is right, implement laws, and act correctly based on their moral convictions.

Q3: To what extent do the five major personality factors contribute to predicting moral intelligence? This inquiry is addressed in Table 10.

Table 10

Results of multiple linear regression analysis by stepwise method

predicted dimension	Predictive factors				ndardized fficients	Standa rdized Coeffi cients	t	Sig.	
			R	R Square	В	Std. Error	Beta	-	
moral	(Constant)			79.047	3.857		20.496	.000	
intelligence	Neuroticism	.506	.256	753	.091	283	-8.296	.000	
	Conscientiousnes s	.593	.352	.732	.106	.241	6.918	.000	
	Agreeableness	.637	.406	.714	.095	.251	7.522	.000	
	Openness to experience	.646	.418	.303	.083	.116	3.638	.000	
Self- adjusting	(Constant)			21.515	1.365		15.766	.000	
	Neuroticism	.648	.419	607	.035	586	17.37 5	.000	
	Extraversion	.654	.427	.077	.033	.078	2.310	.021	
	Conscientiousnes s	.656	.431	.081	.040	.069	2.052	.041	
Justice	(Constant)			18.973	1.022		18.558	.000	
	Agreeableness	.328	.108	142	.026	218	-5.443	.000	
	Conscientiousnes s	.384	.147	124	.028	179	-4.416	.000	
	Neuroticism	.396	.157	.069	.025	.113	2.776	.006	
Empathy	(Constant)			7.298	.779		9.372	.000	
	Agreeableness	.461	.213	.210	.029	.282	7.127	.000	
	Conscientiousnes s	.513	.264	.137	.030	.173	4.610	.000	
	Extraversion	.539	.290	.117	.028	.177	4.240	.000	
	Openness to experience	.545	.296	.059	.025	.086	2.393	.017	
Respect	(Constant)			11.698	1.351		8.661	.000	
	Agreeableness	.331	.110	.292	.041	.312	7.113	.000	
	Openness to experience	.362	.131	.139	.034	.161	4.141	.000	

	Neuroticism	.371	.137	097	.036	110	-2.701	.007
	Extraversion	.380	.144	090	.039	108	-2.329	.020
Liberality	(Constant)			10.485	1.234		8.496	.000
	Conscientiousnes s	.464	.215	.312	.034	.367	9.248	.000
	Agreeableness	.492	.242	.151	.033	.191	4.616	.000
	Openness to experience	.497	.247	.070	.027	.095	2.571	.010
	Extraversion	.502	.252	079	.031	112	-2.565	.011
	Neuroticism	.509	.259	071	.029	096	-2.444	.015
Conscience	(Constant)			10.566	1.232		8.578	.000
	Conscientiousnes s	.501	.251	.350	.034	.401	10.397	.000
	Agreeableness	.533	.284	.175	.033	.214	5.333	.000
	Neuroticism	.539	.291	084	.029	110	-2.894	.004
	Extraversion	.545	.297	089	.031	122	-2.883	.004
	Openness to experience	.549	.302	.057	.027	.076	2.105	.036

The findings presented in Table 10 reveal that the neurotic factor accounts for (25.6%) of the variance in moral intelligence. Furthermore, in the presence of the neuroticism factor, conscientiousness contributes (9.6%) to the degree of moral intelligence. Similarly, the combination of goodness with the coexistence of neuroticism and Conscientiousness illustrates (5.4%) of the moral intelligence level. Lastly, the factor of openness to experience, when considered alongside neuroticism, conscientiousness, and kindness, contributes (1.2%) to the overall degree of moral intelligence. This implies that there is a close correlation between personality factors and moral intelligence. Also, when predicting each of the dimensions of moral intelligence through the five major factors, it was found that they predict in varying proportions and in different orders. The highest percentage of explanation was for the control dimension, where a percentage (0.431) of moral control was explained through three personality factors: (neuroticism, extroversion, conscience) and explained percentages of (0.419, 0.427, 0.431) when they were cumulatively entered into the prediction equation, respectively. While the dimension of respect came in last place in terms of prediction through the five major factors, where four factors combined explained a percentage (0.144) of respect, which are (kindness, openness to experience, neuroticism, extroversion), respectively, in terms of their importance in the prediction process.

Q4: Do statistically significant differences exist, at a significance level of ($\alpha \le 0.05$) between males and females regarding the five major factors of personality and moral intelligence? This question is addressed in Table 11.

Table 11Descriptive statistics of the Degree of the Five Major Factors of Personality and Moral Intelligence among Students According to the Gender Variable

Dimension	Gender	Average	Standard deviation
Neuroticism	Males	12.9480	3.42113
Extraversion	Females	14.5639	3.70926
	Males	22.2800	3.75152
Openness to experience	Females	22.3229	3.97235
	Males	21.7680	3.84256
	Females	21.6819	3.71640
Conscientiousness	Males	25.0000	3.43500
Agreeableness	females	25.3060	3.10296
	Males	22.8720	3.41853
Moral intelligence	Females	22.8458	3.48639
	Males	109.8560	10.57025
	Females 109.8843	9.35381	

Table 11 elucidates noteworthy differences in the arithmetic means and standard deviations of the five major personality factors and moral intelligence among students, stratified by gender. To ascertain the statistical significance of these differences, a multivariate analysis of variance (MANOVA) was conducted, where the following was conducted: First: Verify the assumptions of the multi-group analysis as follows: The assumption of homogeneity of variance and covariance was verified through Box's M test as indicated in Table (12).

Table 12 *Box's Test of Equality of Covariance Matrices*^a

test	value
Box's M	38.500 1.540
F	1.540
df1	15
df2	1113005.910
Sig.	082.

It is noted from the results of the Box's M test that homogeneity of variance and covariance was achieved, as the probability value of the F test was less than the significance level ($\alpha = 0.05$).

• The normality test was verified through the Kolmogorov-Smirnov test, the results of which are elucidated in Table (13).

Table 13 *Kolmogrove test results*

test	Neuroticism	Extraversion	Openness to experience	Conscientiousness	Agreeableness
Kolmogorov -Smirnov Z	1.117	.476	.447	.702	1.027
Asymp. Sig. (2-tailed)	.165	.977	.988	.707	.242

Table 13 demonstrated that the distribution of students' responses to each of the dimensions of personality factors follows a normal distribution, as the probability values ranged between 0.165 to 0.988, which are values greater than the significance level ($\alpha = 0.05$), which indicates that the distribution of responses does not differ from the normal distribution.

Second: a multiple analysis of variance was employed, as indicated in Table 14

Table 14Analysis of multiple variance of the gender variable on the five major factors of personality and moral intelligence

Contrast source	Dimensions	Sum squares	of	Degrees of freedom	Average squares	P-value	Statistic al significa nce	Micro ETA box
Sex	Neuroticism	407.354		1	407.354	*31.366	.001	.045
	Extraversion	.287		1	.287	.019	.891	.000
	Openness to experience	1.156		1	1.156	.082	.775	.000
	Conscientiousness	14.611		1	14.611	1.399	.237	.002
	Agreeableness	.107		1	.107	.009	.925	.000
	Moral intelligence	.125		1	.125	.001	.971	.000
Error	Neuroticism	8610.382		663	12.987			
	Extraversion	10037.133		663	15.139			
	Openness	9394.558		663	14.170			
	Conscientiousness	6924.135		663	10.444			
	Agreeableness	7942.034		663	11.979			
	Moral intelligence	64043.264		663	96.596			
Total	Neuroticism	138547		665				
	Extraversion	340936		665				
	Openness	322950		665				
	Conscientiousness	428938		665				
	Agreeableness	355325		665				
	Moral intelligene	8092074		665				
Kidney	Neuroticism	9017.735		664				
Corrector	Extraversion	10037.420		664				
	Openness to	9395.714		664				
	experience							
	Conscientiousness	6938.746		664				
	Agreeableness	7942.141		664				
	Moral intelligence	64043.389		664				

Table 14 elucidates differences between male students (mean = 12.9480) and female students (mean = 14.5639) in the neurotic factor (p = 31.366, α = 0.001), favoring female students, indicating a higher level of neuroticism among them. It is important to note that neuroticism is often linked to emotional distress and depression. However, no statistically significant differences were observed at the ($\alpha \ge 0.05$) level for other personality factors, including extroversion, openness to experience, Conscientiousness, and kindness, with respect to the gender variable.

Moral Intelligence: To examine the effect of gender on the dimensions of moral intelligence, As indicated in table 15

Table 15 *Average results of the answers of respondents*

Dimension	Gender	Mean	Std. Deviation	N
	Males	17.6080	3.87432	250
Self-adjusting	Females	16.3205	3.69631	415
	Total	16.8045	3.81275	665
	Males	13.3680	2.16224	250
Justice	Females	13.6771	2.29825	415
	Total	13.5609	2.25143	665
	Males	19.1760	2.86388	250
Empathy	Females	19.5976	2.36101	415
	Total	19.4391	2.56769	665
	Males	18.2480	3.31397	250
Respect	Females	17.9133	3.19150	415
-	Total	18.0391	3.23967	665
	Males	20.1800	2.97169	250
Liberality	Females	20.7976	2.58058	415
•	Total	20.5654	2.74833	665
	Males	21.2760	2.94934	250
Conscience	Females	21.5783	2.74663	415
	Total	21.4647	2.82614	665

Table 15 highlights that there are differences in the arithmetic means for each of the dimensions of moral intelligence according to gender. To examine the significance of these differences, a multivariate analysis of variance (MANOVA) was conducted, where the following was conducted: Verify the assumptions of the multi-group analysis as follows: The assumption of homogeneity of variance and covariance was verified through Box's M test as presented in Table 16.

Table 16 *Box's Test of Equality of Covariance Matrices*^a

test	value
Box's M	44.582
F	1.399
df1	21
df2	1026012.562
Sig.	0.105

Table 16 demonstrated that the results of the Box's M test that homogeneity of variance and covariance was achieved, as the probability value of the F test was less than the significance level ($\alpha = 0.05$). The normality test was verified through the Kolmogorov-Smirnov test, the results of which are elucidated in Table 17.

Table 17 *Kolmogrove test results*

Test	Self- adjusting	Justice	Empathy	Respect	Liberality	Conscience
Kolmogorov-Smirnov Z	.753	1.067	1.154	.948	1.185	.854
Asymp. Sig. (2-tailed)	.622	.205	139.	.330	.121	.459

From the provided table, it is clear that the values ranged between 0.121 to 0.622, which are values greater than the significance level ($\alpha = 0.05$), which indicates that the distribution of responses does not differ from the normal distribution.

Second: Conduct a multi-group analysis of variance in Table 18.

Table 18Multivariate analysis of variance tests

Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's Trace	.068	7.951 ^b	6.000	658.000	.000	.068
Wilks' Lambda	.932	7.951 ^b	6.000	658.000	.000	.068
Hotelling's Trace	.073	7.951 ^b	6.000	658.000	.000	.068
Roy's Largest Root	.073	7.951 ^b	6.000	658.000	.000	.068

Table 18 illustrates that there is a difference in the dimensions of moral intelligence attributed to gender, as the probability value of the Wilks' Lambda test was less than the level of significance ($\alpha < 0.05$). To find out which dimensions differed according to gender, as shown in table 19.

Table 19 *Tests of Between-Subjects Effects*

Source	Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
	Self-adjusting	258.627	1	258.627	18.253	.000	.027
	Justice	14.907	1	14.907	2.949	.086	.004
Gender	Empathy	27.730	1	27.730	4.226	.040	.006
Gender	Respect	17.482	1	17.482	1.667	.197	.003
	Liberality	59.507	1	59.507	7.961	.005	.012
	Conscience	14.259	1	14.259	1.787	.182	.003
	Self-adjusting	9393.960	663	14.169			
	Justice	3350.877	663	5.054			
Error	Empathy	4350.054	663	6.561			
EHOI	Respect	6951.501	663	10.485			
	Liberality	4955.898	663	7.475			
	Conscience	5289.161	663	7.978			
	Self-adjusting	9652.586	664				
	Justice	3365.783	664				
Total	Empathy	4377.783	664				
1 Otal	Respect	6968.983	664				
	Liberality	5015.405	664				
	Conscience	5303.420	664				

Table 19 highlights that the there are fundamental and statistically significant differences at the significance level ($\alpha < 0.05$) in each of the dimensions of moral intelligence attributed to gender, which are in favor of females on the dimensions (justice, empathy, tolerance, conscience), while the differences were In favor of males on the two dimensions (self-control, respect). That is, females are more fair, empathetic, tolerant, and conscientious than males, but males are more self-regulating and respectful than females.

Discussion, Conclusion and Implications

The findings reveal that among university students, conscientiousness emerges as a significant factor within the realm of personality, aligning with the conclusions drawn in a prior study by Shatnawi (2019). This outcome implies that students exhibit traits such as perseverance, diligence, and a commitment to achieving their goals. They are dedicated to fulfilling their duties and tasks in accordance with their consciences, grounded in their beliefs in their competence and ability to exercise self-control over their behaviors. Additionally, Riaz (2018) confirmed that the factor of alertness of conscience is linked to achieving self-discipline, commitment to performing duties, ability to work, continuity, and adherence to morals and values. These results are

compatible with Rath et al.'s (2021) study, and are attributed to the nature of the prevailing culture in society, the system of moral values, and the role of educational institutions, including family, school and university, which enhance the positive model and the ideal image of university students. Furthermore, Religiousness is also an important factor and is closely related to the alerting of conscience, and it leaves an impact on the individual's life, and pushes them to commit to everything that is acceptable and right. This is confirmed by the study of Gorgol et al. (2023) Conscientiousness gives motivation for achievement and academic progress, and this is consistent with the study of Jones et al. (2021). On the contrary, a low degree of conscientiousness in an individual means an inability to complete tasks and accomplish them efficiently, low motivation, and a failure to bear moral responsibility towards his duties, which leaves an impact on his life and relationships. The results showed that the neurotic factor came in last place, a finding consistent with the study conducted by Patrick (2010). The reason for this is due to the cognitive and emotional maturity enjoyed by university students, which makes them more able to implement life goals and future ambitions. Additionally, the university roles in refining students' personalities by providing them with leadership skills through lectures and guidance seminars; Which enhances the concepts of psychological hardness, self-efficacy, conflict management, and problem solving. Consequently, All of that entitles students to engage in society with purposeful and constructive activities. This by itself reduces the levels of neuroticism, tension and agitation, and enables individuals to make appropriate decisions wisely and rationally. neuroticism and its manifestations of fear, hesitation and lack of self-confidence are reflected in the lives of individuals and their level of satisfaction with their lives; this is confirmed by studies such as Grant (2011), Bayanfar (2020), and Schunk and Trommsdorff (2023). On the other hand, a high level of neuroticism means more negative emotions such as anger, tension, and emotional instability, which constitutes an obstacle to the individual achieving his ambitions.

The findings confirmed that the level of moral intelligence came average, and it came after conscience which scored first place. This outcome aligns with Nobahar et al. (2022), and is attributed to the fact that moral intelligence is affected by socialization. This is confirmed by the study conducted by Patrick et al. (2018). Moreover, intellectual and moral maturity plays an important role in increasing individual's level of perception and awareness of responsibility for one's actions. This, in turn, prompts

them to possess moral convictions and beliefs that reflect positively on their moral values, good standards, and personal qualities. This is confirmed by the study of Alobaidani (2022). This is confirmed by the study conducted by Amiri et al. (2023) found that moral intelligence is affected by the cultural context of societies, and personality development depends on the cognitive, moral, and emotional levels possessed by the individual. The result can be explained in light of the link between religiosity and conscience, acorrelation supported by the findings of the study conducted by Xie and Xie (2023). Which found that the level of religiosity promotes a deeper understanding of moral values and supports common moral behaviors. On the contrary, the lack of the concept of moral intelligence affects the balance, integration, and psychological stability of the personality, and leads to the emergence of many unethical behaviors such as cheating in exams, which means losing the moral principles and values that guide the individual's behavior.

The findings suggest that personality factors predict moral intelligence. This association can be due to personality and its components, which constitute an integrated framework for expressing the individual's thoughts, feelings, behaviors, and values. Within this framework, Moral intelligence constitutes a basic pillar in building this personality and directly affects the various aspects of life. As moral intelligence plays a pivotal role in directing, managing, and monitoring learning and thinking behaviors in a way Good. Any individual's personality can be described according to their type of intelligence, and therefore a good personality is one that applies moral values and adheres to the standards of correct behavior. The result of this question is consistent with the study of Mohagheghi et al. (2021), indicating that openness to experience is one of the factors that predict moral intelligence.

This implies that individuals who are characterized by their ability to accept the beliefs and values of others, characterized by a creative way of thinking, have a passion to try new methods, and are characterized by their fair opinions have a larger level of moral intelligence. These attributes are components of moral intelligence and were confirmed by the Furnham and Chen (2023), Nobahar et al. (2022), and Yablovi et al. (2016) studies. Which all pointed to the close correlation between personality factors and the moral element. In contrast, the lack of correlation between personality factors and

moral intelligence means psychological disorder and behavioral deviation. The findings showed that Female students are more neurotic, and this result is consistent with the study of Jones et al. (2021), Silva et al. (2022), and Gashi et al. (2022). The reason for this result could be due to the physiological changes in females which play a role in increasing anxiety and contribute to raising the level of emotional agitation. Additionally, the inherently sensitive psychology of women may make them more prone to irritation, agitation, and emotional thinking rather than rationality, as underscored by the research of Silva et al. (2022). It is important to note that neuroticism is often linked to emotional distress and depression.

Many students face a lack of experience in handling crises and life challenges. Relying on parents to address their problems can render them more apprehensive, cautious, and anxious when confronting developments and stressful situations. Moreover, individuals vary in their capacity to navigate negative emotions such as sadness, pain, pessimism, and neuroticism based on their past experiences, mental health status, level of psychological hardiness, and personality type. These variations are supported by the findings of Barton's study in 2013. As indicated in Table 19, statistically significant differences were observed at the ($\alpha > 0.05$) level in moral intelligence based on the gender variable. This finding aligns with the results reported in the study by Amiri et al. (2023). The consistency in these outcomes can be attributed to the prevalent societal values and parenting practices, and intelligence depends on the cognitive, moral, and emotional levels possessed by the individual. Many families emphasize values such as respect for others, motivation in life, honesty and conscience in work, acceptance of others, and adherence to laws and instructions. This perspective is reinforced by additional studies, including those conducted by Kanoğlu (2019), Lennick and Kiel (2006), and Yakut and Yakut (2021). On the contrary, the presence of no differences may be attributed to psychological, social and cultural variables

One of the implications of this study is that its results revealed that personality characteristics have a significant impact on moral intelligence. Based on this finding, it becomes clear how important it is to help students understand their personal characteristics and invest them in directing their creative energies through lectures, seminars, and specialized guidance programs.

Implications

The study provides a theoretical framework, valuable insights, and comprehensive and realistic knowledge that can guide educational institutions in designing targeted guidance programs. These programs have the potential to assist students in comprehending their personal characteristics, channeling their creative energies, fostering ethical behaviors, and garnering support for their personal growth, ultimately benefiting both the individual and society at large. Thus, the study serves as a valuable resource for institutions aiming to enhance the holistic development of their students.

In addition, the study encourages the design of guidance, preventive and curative programs and plans to contribute to deepening the concepts of moral intelligence and its impact on students' lives through guidance centers in universities. These practical steps are not only necessary to acquaint students with their personal characteristics and their impact on their practical and life lives to create influential youth leaders capable of making the future and overcoming challenges, but it is also consistent with the practical and educational goals of education policy in Jordan, which enhances the collaboration of educational institutions and the media join hands to build constructive personalities committed to laws and regulations, by promoting positive models, instilling moral beliefs, and applying moral principles such as justice, integrity and acceptance of others.

Conclusion

The study aimed to determine the levels of the five major personality factors concerning moral intelligence and the predictive capability of these factors on moral intelligence. The findings found that conscientiousness is one of the most common factors among students, and the general level of moral intelligence among university students is moderate. This suggests that students possess an internal guide and self-monitoring mechanisms contributing to behavioral control, thereby positively influencing the consolidation of their moral values, life principles, and human sentiments. Moreover, the study supports the notion that the five major personality factors serve as predictors of moral intelligence. Furthermore, the research identified a gender difference, noting that females exhibit higher levels of neuroticism compared to males. This indicates a

heightened state of anxiety and tension among females, potentially impacting their work and overall quality of life negatively.

Limitations and Future Directions

One limitation of this study is its temporal and contextual scope, as it was conducted solely during the academic year 2023 and was restricted to students at the WISE in Amman. The sample size was consequently limited, and the duration of the study was confined. The researcher suggests that future research on the five major personality factors and moral intelligence should encompass a more diverse sample to capture variations in personal and moral values among individuals. Additionally, it would be valuable to explore the interplay between the five major personality factors and moral intelligence concerning variables such as age, psychological hardness, emotional maturity, and mindfulness in future studies.

Recommendations

The study recommends the enhancement of students' personalities through the provision of knowledge and experiences. University deans and student affairs staff are encouraged to conduct lectures aimed at fostering the development of desired personal traits and instilling values and ethical standards. The goal is to cultivate a generation of creative and influential youth leaders capable of overcoming challenges and contributing to the construction of a better world. Collaboration between educational institutions and the media is emphasized, advocating for the development of constructive personalities committed to laws and regulations. This can be achieved by promoting positive role models, instilling moral beliefs, and applying principles such as justice, integrity, and acceptance of others.

References

- Alinejad, V, Parizad, N, Almasi, L, Cheraghi, R, Piran, M. (2023). Evaluation of occupational stress and job performance in Iranian nurses: The mediating effect of moral and emotional intelligence. *BMC Psychiatry*, 23(10). 1-12. doi: 10.1186/s12888-023-05277-8.
- Amiri, R, Gaeeni, M, Tehran, H. (2023). The mediating role of moral reasoning in spiritual intelligence and caring behaviors in Iranian emergency nurses. *Journal of Medical Ethics & History of Medicine*, 16 (11), 1–20
- Ary, D, Jacobs, L, Razavieh. (2004). Introduction to research in education, (S. Al-Husseini Trans.). University Book House.
- Areshtanab, H., Rezvani, R.; Ebrahimi, H., Bostanabad, M., Hosseinzadeh, M. (2022). Moral intelligence and its relationship to resilience among nursing students in Iran, *Journal of Psychiatric Nursing*, *13*(1),9–14. doi: 10.14744/phd.2022.49368
- Ashokan, V. (2019). Education for sustainable development preserving linguistic and cultural diversity. *International Journal of Research In Social Science*, 9(4), 1–16.
- Bartone, P., Hystad, S., Eid, J., Brevik, J. (2012). Psychological hardiness and coping style as risk/resilience factors for alcohol abuse. *Military Medicine*, 77(5), 517–524. DOI: 10.7205/milmed-d-11-00200
- Bayanfar, F. (2020). Predicting corona disease anxiety among medical staff in Tehran based on five- factor theory of personality. *Iranian Journal of Health Psychology*, 2(2), 113–126. https://doi.org/10.30473/ijohp.2020.52976.1078
- Beiranv, A. & Yaghoobi, A. (2024). Predicting moral intelligence based on parenting styles and six hexaco personality traits. *Journal of Fundamentals of Mental Health*. 26 (1), 9-15. DOI: 10.22038/JFMH.2023.52833.2850.
- Bulut, M., & Arikan, A. (2015). Socially responsible teaching and English language coursebooks: Focus on ethnicity, sex, and disability. *E-Journal of Yaşar University*, 10, 13-20.
- Costa, P. & McCrae, R. (2013). Personality in adulthood: A five-factor theory perspective. *Routledge*, doi 10.4324/9780203428412
- Da Raad, B. (2000). The big five personality factors: The psychological approach to personality, Hogrefe and Huber Publishers.
- Furnham, A. & Cheng, H. (2023). The Big Five personality factors, cognitive ability, health, and social demographic indicators as independent predictors of self

- efficacy: A longitudinal study. *Scandinavian Journal of Psychology*. doi: 10.1111/sjop.1295
- Gashi, D., Gallopeni, F., Imeri, G., Shahini, M., Bahtiri, S. (2022). The relationship between big five personality traits, coping strategies, and emotional problems through the COVID-19 pandemic. *Current Psychology*, 1–10. DOI: 10.1007/s12144-022-03944-9
- Garson, G. D. (2009). Structural Equation Modeling. Retrieved on 5th October 2014 from http://faculty.chass.ncsu.edu/garson/PA765/structur.htm.
- Gorgol, J., Łowicki, P., Stolarski, M. (2023). Godless owls, devout larks: Religiosity and **conscientiousness** are associated with morning preference and (partly) explain its effects on life satisfaction. *PLoS ONE*, *17* (5), 1–15. <u>doi: 10.1371/journal.pone.0284787</u>
- Grant, S. (2011). *Neuroticism*: The personality risk factor for stress and impaired health and well–being, *Psychology Research Progress*. Nova Science Publishers.
- Gupta, A. & Wani. M. (2018). Locus of control and **big five personality factors** among lovely professional university students. *Indian Journal of Positive Psychology*, 9(4), 473–476, <a href="http://http:
- Hadziahmetovic, N., Jabucar, A., Zilic, M. (2023). Improving education through linking **personality** to organizational citizenship behavior in Balkans universities. *International Journal of Social Sciences & Educational Studies*, 10 (3), 65–81, doi: 10.23918/ijsses.v10i3p65
- Hengartner, M., Haldlmann, B. & Altenstein, M. (2020). Personality traits and psychopathology over the course of six months of outpatient psychotherapy: A prospective observational study. Psychology for Clinical Settings, *section of the journal Frontiers in Psychology*, 11(174), doi: 10.3389/fpsyg.2020.00174
- Jamaludin, H; Mohamed, B; Noorashid, N. (2020). Food waste motivational factors: The theory of planned behavior and the role of big-five personality traits on Malaysians generation Z. *Global Business & Management Research*, 12 (4), p73–89.
- Jones, D., Ord, A., Duskey, K., Jones, K., Duchac, N., Dern, M., Montiel, L. (2021). Big five factor personality differences by academic major and gender in a faith-based university sample. *Journal of School Counseling*, 19(11), 1–26, https://eric.ed.gov/?id=EJ1295023
- Karabey, T. (2022). Reflection of nurses' moral intelligence levels on care behaviors. *Perspectives in Psychiatric Care*, 58(4), 1622–1631, *doi: 10.1111/ppc.12970*.
- Kalshoven, K., Den Hartog, D., De Hoogh, A. (2011). Ethical leader behavior and big five factors of personality. *Journal of Business Ethics*, 100(1), 349–366, https://doi.org/10.1007/s10551-010-0685-9

- Kanoğlu, M. (2019). Moral intelligence (2nd ed.). Hayat Publications.
- Lennick, D., & Kiel, F. (2006). Moral intelligence for successful leadership. *Leader to Leader*, 60 (40), 13–16.
- Mohagheghi, H., Farhadi, M., Rashid, K., Beiranvand, A. (2021). Predicting moral behavior based on moral intelligence and personality traits: The mediating role of the structure self transcendence. *Journal of Fundamentals of Mental Health*, 23(4), 273–284,
- Nobahar, M., Yarahmadi, S., Raiesdana, N., Delshad, E., Shahidi, H., Fatemeh, E., brahimzadeh, F. (2022). Predicting moral intelligence in nursing students and its relationships with self-compassion, and cultural competence: a cross-sectional study. *BMC Nursing*, 21(1),1–7, https://doi.org/10.1186/s12912-022-01111-w.
- Panahi, A., Adineh, H., Otaghi, M., JamshidBeigi, A., Eghbalian, M. (2022). The relationship between moral intelligence and aggression in nurses. *Asean Journal of Psychiatry*, 23(7), 1–8.
- Patrick, H. (2010). Personality traits in relation to Job satisfaction of management educators. *Asian Journal of Management Research*, 239–249.
- Patrick, R., Bodine, A., Gibbs, J., Basinger, K. (2018). What accounts for prosocial behavior? Roles of moral identity, moral judgment, and self-efficacy beliefs. *Journal of Genetic Psychology*, 179(5), 231–245, DOI: 10.1080/00221325.2018.1491472
- Prasetiawan, H., & Barida, M. (2018). The profile of adolescent moral intelligence and practical solution to its improvement efforts. *In SHS Web Of Conferences*, (42), 121
- Pigeron, E. (2012). Parents' moral discussions about strategies for monitoring children's media exposure. *Novitas-ROYAL (Research on Youth and Language)*, 6(1), 15-32.
- Rath, N., Kar, S., Kar, N. (2021). Personality and mental health factors associated with performance at university level: A study of business administration students. *Industrial Psychiatry Journal*, 30(2), 323–328, doi: 10.4103/ipj.ipj_34_21.
- Riaz, M., Mueen, A., & Iram, N. (2015). Relationship between personality factors and level of forgiveness among college students. *International Journal of Humanities and Social Science*, 5(7), 23–57.
- Rastegari, Z., & Rastegari, L. (2022). Prediction Of Moral Intelligence Related To Personality Traits And Marital Satisfaction In Couples Of Shiraz City. *Journal of Pharmaceutical Negative Results*, 13(7), 8147-8155. DOI: 10.47750/pnr.2022.13.S07.983

- Schredl, M. & Göritz, A. (2020). Reading dream literature and the big five personality factors. *Dreaming*, 30(1), https://doi.org/10.1037/drm0000129
- Shatnawi, A. (2019). The five major factors of personality and their relationship to a carefree life and self-efficacy among university of Jordan students. Unpublished Master's Thesis, University of Jordan, Amman.
- Shannon, S & David, B. (2021). Neuroticism: A new framework for emotional disorders and their treatment. The Guilford Press.
- Silva, M., Carvalho, J., Rodrigues, C. (2022). Evaluation of Big Five personality factors in women with fibromyalgia: A cross-sectional study. Rheumatology international, 42(3), 503–510, https://doi.org/10.1007/s00296-021-04936-x
- Smillie, L., Katic, M., Laham, S. (2021). Personality and moral judgment: Curious consequentialists and polite deontologists. *Journal of Personality*. 89 (3), p549-564. 16p. 3 Charts. DOI: 10.1111/jopy.12598
- Schunk, F. & Trommsdorff, G. (2023). Longitudinal associations of neuroticism with life satisfaction and social adaptation in a nationally representative adult sample. *Journal of Personality*, *91* (5), 1069–1083, doi: 10.1111/jopy.12783
- Xie, D. & Xie, Z. (2023). Effects of undergraduates' conscientiousness on their cyber aggression: The roles of online moral anger and gender. *Social Behavior & Personality: an international journal*. 51(1), 1–8, doi: 10.2224/sbp.11920.
- Yablovi B., Mostahfezian M., Meshkati, Z. (2016). Relationship between ethical factors and personality traits. *Ethics in Science And Technology*, 11(1), 137–144, http://ethicsjournal.ir/article-1-245-en.html
- Yakut, S. & Yakut, İ. (2021). Moral intelligence scale. *Journal of International Social Research*, 14(76), 836–842, https://web.s.ebscohost.com/ehost/pdfviewer/pdfviewer? vid=0%26;sid= bac59fc5-6500-47c1-88f3-0862c397e097%40redis
- Wan, T. T. H. (2002), Evidence-Based Health Care Management: Multivariate Modeling Approaches (1st ed.), Norwell, MA: Kluwer Academic Publishers.
- Zahi, Q., Willis, M., Oshen, B., Zahi, Y & Yang, Y. (2013). Big five personality traits, job satisfaction and subjective wellbeing in China. *International Journal ofPsychology*, 48(6), 1099–1108.
- Zhang, L. (2006). Thinking styles and the big five personality traits revisited, personality and individual differences, 40(6), 1177–1187, https://doi.org/10.1016/j.paid.2005.10.011