

# Personality Traits and Performance: A Study on Hospital Nurses in Johor

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## Abstract

It is a complicated and variable relationship between personality traits and job performance, which has significant implications for the success of organizations and the level of satisfaction experienced by their employees. Personality traits, which are traits that serve to identify an individual's behaviour over time, play a significant role in determining how an individual approaches their work, interacts with their coworkers, and reacts to challenging situations. Thence, this study focuses on the purpose is to identifying the relationship of the five personality traits to the performance the most of hospital nurses in Johor. By using the quantitative method, 370 respondents focus on the nurses who worked in the hospital of Johor have been chosen to answer the questionnaire. Statistical Package for Social Science (SPSS) will use to analyse the data. These results may help in understanding how personality traits affect job performance allows organisations to enhance their selection and recruitment processes.

## 1. Introduction

The relationship between personality traits and job performance is complex and changeable, affecting organisation success and employee satisfaction. Businesses must understand this link to boost productivity, workplace harmony, and employee retention. Personality qualities, which indicate an individual's behaviour throughout time, influence how they work, engage with coworkers, and handle difficult situations. I will study Johor hospital nurses' characteristics and performance for this project. Personality characteristics affect service industry productivity. Even though many things might affect a company's performance, people are still crucial. This influence is mostly due to worker personality.

Ibrahim (2004) states that job performance requires setting goals and procedures to meet organisational goals and determining output levels. Work towards a goal is employee effort (El-Saghier, 2002). Job performance has traditionally been an employee's efficiency in completing tasks. In recent years, employees must go above and beyond their jobs to achieve organisational goals. Output or process implementation can assess job performance. Clear objectives and goals simplify job performance assessment. Personality traits affect job performance in an organization. Work performance is heavily influenced by personality. Extraverted, agreeable, conscientious, and exploratory employees are more likely to be supported and succeed at work (Barrick, 2005). Some studies show that neuroticism inversely affects employee performance. Evaluation and control of employee performance is one of the most difficult applied challenges organizations face.

Research shows that many factors affect employee performance. Employee performance is heavily influenced by psychological factors, particularly personality traits. Different personalities lead to various job performance, which lowers the company's performance. Individual personality traits affect organization performance.

This study examines how personality affects job performance. Dissatisfaction due to inconsistent employee performance has led to a decline in performance, which has threatened the institution's viability, decreased motivation, absenteeism, grievances, and attrition Mylvaganam and Zulkipli (2023). Extraversion may also improve task performance and creativity due to its positive impact (Clark & Watson, 1991). Heineck (2007) found a negative relationship between agreeableness and performance in the UK. However, "openness to experience" is valued and rewarded, improving performance. Another intriguing finding was that conscientiousness and performance were nonlinear. Employee personality and performance are strongly correlated, and many companies take advantage of this. One of the biggest psychological factors affecting human behavior is personality. Many psychologists believe the Big Five personality traits best represent personality structures across cultures. This is why these traits are success indicators for employees (Digman, 1990; Harari *et al.*, 2014; Wiggins & Trapnell, 1996). Judge *et al.* (2002) found that neurotic employees hurt their employers. Many studies have examined the links between workplace integrity, neuroticism, openness to experience, extraversion, and agreeableness (Murphy, 2000; Barrick, Mount, & Judge, 2001; Ones & Viswesvaran, 1996).

Therefore, to achieve the research objective the level of the performance of hospital nurses in Johor. Consequently, the relationship between the five personality traits to the performance the of hospital nurses in Johor.

## 2. Literature Review

### 2.1 Job Performance

According to Lawler (1976), job performance is a report of the outcomes achieved by workers after performing a job for a given period of time. Measurements of an employee's performance on the job could be used to determine promotions, compensation modifications, incentives, penalties, and evaluations with regard to the employee after a certain period of time has passed. Lee *et al.* (1999) stated three categories were used to classify job performance: efficiency, efficacy, and quality. Voluntary employee behaviors that are believed to directly improve the effective functioning of an organization while not immediately influencing an employee's productivity are referred to as contextual or extra-role performance. These behaviors are perceived to be beneficial to the organization.

### 2.2 The Big Five Personality Traits

A personality trait may be an individual's consistent response to their environment. Personality theorists believe they can predict a person's actions by analysing their traits. Awwad & Al-Aseer (2021). Two people cannot be identical. Each person has unique physical and mental traits. Psychology calls these mental and physical traits "personality". "The inner psychological characteristics that both determine and reflect how a person responds to his or her environment" is the most common personality definition (Schiffman *et al.*, 2015, 120). The Big Five, also known as the five-factor model of personality, has become one of the most widely used frameworks for defining personality traits over the past twenty years (Digman, 1990; Judge *et al.*, 2002). The Big Five personality traits are extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Extraversion is the most prominent of these five dimensions. These traits are hierarchical. According to the Big Five personality traits, these are their traits (Amanuel Bekele, 2017). Research shows that these traits affect job performance, motivation, leadership, teamwork, entrepreneurship, and management strategy. These are some of the areas most affected (Anderson, 2013).

### 2.3 Extraversion

Extraverted people are friendly, outspoken, and active throughout their lives. Discussing extraversion subcomponents is controversial (McCabe and Fleeson, 2012). A broad personality trait called "extraversion" includes friendliness, assertiveness, high activity, positive emotions, and impulsivity (Lucas and Diener, 2001). Extraversion and affectivity are linked. Affectivity is "an emotion-based trait dimension (Watson *et al.*, 1988) that creates a cognitive bias through which individual approach and understand experiences and may affect how they experience and evaluate jobs" (Naquin and Holton, 2002). Extraversion is an affective cognitive bias.

### 2.4 Neuroticism

Neurotic people react negatively to environmental stress, perceive everyday events as threats, and find even minor complaints stressful. Neuroticism is a well-established and empirically validated personality trait. Significant research shows its inheritance, developmental antecedents, temporal stability across life, and universal presence (Widiger and Oltmanns, 2017). Neuroticism is linked to anxiety, depression, and suicidal behavior. Neuroticism may mediate this relationship and depression (Carmen, 2022). In addition, migraine sufferers, especially those with anxiety and depression, are often neurotic, suggesting a link between neuroticism

and migraine treatment. Long-term childhood, adolescent, and young adult cancer survivors are neurotic. The survey found that high neuroticism was linked to young age, adverse effects, and poor health (Yu & Xiaohe, 2023).

## 2.5 Openness to Experience

The Five-Factor Model's most important aspect is openness to experience, which encompasses many traits that are only loosely related. Myers-Briggs Type Indicator traits include ambiguity tolerance, low dogmatism, diversity, artistic sensitivity, absorption, unconventionality, intellectual curiosity, and intuition. Need for diversity is another trait. Openness is the least understood of the five variables, possibly because its relationships are unclear. (McCrae, 2004). Being open to new experiences may not always improve well-being. One might expect this trait to play the "opposite" role to conscientiousness. Being open to new experiences can increase fluctuations and variability in one's well-being. Similar to conscientiousness, standard moderation tests may not detect the destabilizing effect. Therefore, more research is needed to examine personality traits as indicators of shifting patterns and permanent well-being stability (Hill *et al.*, 2014).

## 2.6 Conscientiousness

Conscientiousness is a key personality trait for predicting health, healthy aging, and human capital (Lejuez *et al.*, 2014). The conscientiousness dimension can indicate perseverance, diligence, and goal-setting. Dependability, industriousness, and efficiency define conscientiousness (Ciavarella *et al.*, 2004). Conscientiousness is linked to major life outcomes and academic performance (Kaela Van *et al.*, 2023). Deliberation, order, industriousness, self-discipline, dependability, and traditionalism are among its components, according to research. Conscientiousness interacts with intelligence, which boosts academic performance, especially in biology, math, and German, according to research.

The resting-state functional network connectivity shows that conscientiousness is linked to brain networks like the fronto-parietal, somatosensory motor-hand, and auditory networks. Brain mechanisms also influence conscientiousness. This study examines conscientiousness and cognition. Meta-analytical correlations suggest a weak but significant relationship between conscientiousness and cognitive abilities, particularly order and achievement striving.

## 2.7 Agreeableness

Agreeableness is a characteristic that, when it comes to interpersonal relationships, signifies the calibre of bonds created via cooperation and trust (Judge, 1999). People who score highly on this factor are more likely to be accommodating, courteous, and flexible in their interactions with others. Since the definition of agreeableness states that it "involves getting along with others in pleasant, satisfying relationships," it is appropriate to link agreeableness with emotional warmth.

The possibility exists that this sentiment will strengthen the worker's sense of affiliation and belonging to the organization's principles and objectives, which will subsequently impact the worker's social identity at work (Organ and Ling, 1995). But computational modelling has illuminated this long-standing contradiction. Research has demonstrated that task uncertainty moderates the effect of agreeableness on team performance. This implies that agreeableness has a big impact on a team's success in situations with different degrees of uncertainty (Konstantinos *et al.*, 2022). Furthermore, agreeableness has been found to positively affect a wide range of external relations, which emphasises the importance of agreeableness in the process of working together to improve the world.

## 2.8 Hospital

Hospitals provide inpatient, outpatient, and emergency care (Antonio *et al.*, 2022). Hospitals have evolved from social organisations to corporate enterprises, reflecting community values and goals (Yandriza *et al.*, 2023). Early hospitals were built to treat troops during wartime, then expanded to treat the sick and needy without family support (Budrys, 2014). Hospitals have evolved to accommodate financial arrangements and technological advances while still providing medical care and reflecting society's values and advances.

## 2.9 Nurses

Nurses provide patient care, medication administration, diagnosis, and treatment support (Sudewi *et al.*, 2020). Patient satisfaction is a key indicator of their success in improving patient care and healthcare facility operations (Lisa, 2021). Nurses should comfort and support patients during illness to promote well-being and recovery (Valentina *et al.*, 2018). Nurses must adapt to changing patient expectations and grow professionally as the profession evolves. No matter how the profession evolves, nursing must provide compassionate and competent care to improve patient health.

## 2.10 Hypothesis Formulation

The hypotheses are presented as follows:

- H1: The relationship between Extraversion and the performance of hospital nurses in Johor.
- H2: The relationship between Neuroticism and the performance of hospital nurses in Johor.
- H3: The relationship between Openness to Experience and the performance of hospital nurses in Johor.
- H4: The relationship between Conscientiousness and the performance of hospital nurses in Johor.
- H5: The relationship between Agreeableness and the performance of hospital nurses in Johor.

## 2.11 Theoretical Framework

The JD-R Model will be discussed, which combines job demands (sustained effort) and job resources. Personality traits may affect how employees handle job demands and resources. A highly emotionally stable person may handle high job expectations without stress. The Job Demands-Resources (JD-R) model considers personality traits because they affect how people perceive and react to job demands and resources. JD-R is based on the Conservation of Resources (COR) hypothesis (Bon & Shire, 2022).

This theory links job demands, personal resources, and performance. Research has examined how paternalistic leadership in Asian contexts (Michelle *et al.*, 2023) and green transformational leadership in military institutions interact with job demands and resources to affect employee well-being and performance (Rudy *et al.*, 2023). Within the JD-R model, perceived COVID-19 sensitivity and job insecurity have been studied as moderators and mediators. Personality can affect workplace demands and resources, which can affect engagement, burnout, and performance (Jie *et al.*, 2023).

## 3. Research Methodology

### 3.1 Research Design

The process of gathering relevant information to answer a research problem or question is all included in the organised framework of methods and procedures known as research design. In order to guarantee the validity, accuracy, reliability, and generalizability of research insights, it is essential (Muhammad, Hassel, Yasa & Satria, 2023). The goal of this study is to identify the personality trait that has the greatest impact on hospital nurses' performance. Nurses employed at Johor Hospital are the research target respondent. Using quantitative approaches, one can perform methodical analyses on numerical data for a range of objectives. For instance, using quantitative seeding equipment for agricultural planting increases planter efficiency by eliminating the need to count seeds (Li & Ming, 2019). The information and data needed for the investigation will be gathered using the quantitative method. The survey was designed as a Google Form, and respondents were asked to rate how agreeable they were with the questionnaire on a scale of 1 to 5.

This study is focus on the personality traits and the performance of hospital nurses in Johor. The respondents of this study will be the employees who involve in the hospital in the state of Johor. The study' target will be the individuals listed under these categories. The data collection will be using survey with the questionnaire method to conduct the research.

### 3.2 Research Population and Sample

A population can be defined as a group of organisms of the same species living in a specific place and time, characterized by interacting individuals (Pivodã, Roxana & Mihaela, 2011). The investigation will focus on nurses that work at Johor Hospital. The study's population includes 12,533 nurses in Johor. The investigation's target respondent is the Johor nurses, specifically, according to the researcher. For this research project, the researcher has set a minimum sample size of 370 respondents to ensure the validity of the study's conclusions. Table 1 shows the sample size method by Krejcie and Morgan (1970).

**Table 1** Determining sample size method Krejcie and Morgan (1970)

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3300	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

### 3.3 Sampling Method

Convenience sampling was the method the researcher used to choose a sample for the investigation. Instead of selecting samples at random, convenience sampling selects samples based on how easily the researcher can access them. This results in a non-random or deliberate sample selection.

### 3.4 Data Collection

The systematic method of gathering and evaluating information on particular variables in order to evaluate results and provide pertinent answers is known as data collection (Boyle, 2022). It entails gathering data through a range of techniques and technologies, which can subsequently be analysed statistically or qualitatively and methodically arranged to meet research goals (Sukmawati, 2023). In scientific research, data collection serves the purpose of identifying the material research requirements. Primary and secondary data sources are the two categories of data sources.

### 3.5 Primary Data

According to research publications, primary data are authentic data that are directly obtained by researchers for particular study or assessment objectives (Nitee & Yeole, 2023). It stands out due to its nonlinear combination of data, which includes individual student grades, attendance records, and correct and incorrect exam responses. The main methods for collecting data are observation, experimentation, modelling modification, interviewing, watching, and submerging oneself in the situation. Hospital nurses in Johor will receive primary data from the researcher in the form of a questionnaire. When obtaining information from people who live in remote areas or are hard to get in touch with in person, questionnaires can be quite helpful.

### 3.6 Pilot Study

The table lists Performance, Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. The Cronbach's Alpha score and number of items used to measure each trait are listed. The traits range from 0.711 for Openness to Experience to 0.806 for Agreeableness, indicating differences. Cronbach's Alpha values usually range from 0 to 1, with higher values indicating reliability. Usually, a number above 0.7 is fine, and values above 0.8 indicate reliability. All traits in this study are acceptable. The highest scores are 0.806 for agreeableness and 0.803 for conscientiousness. This means that the questions used to test these traits are regular and reliable, so we can trust the responses. Openness to Experience's Cronbach's Alpha is 0.711, which is fine but not as good as the others. This may indicate that the trait tests need to be adjusted to be more consistent. If the reliability number is low, people may not understand the items or the items may not capture how complex the

trait is. Level of Performance, based on eight factors, has a Cronbach's Alpha of 0.781, indicating reliability. Thus, it indicates that the items are accurately measuring performance, which is crucial in real-life situations like work and school tests. Table 2 shows the Cronbach's Alpha value for 30 respondents.

**Table 2** Cronbach's Alpha value for 30 respondents

Variables	Cronbach's Alpha	No. item
Level of Performance	0.781	8
Openness to Experience	0.711	5
Conscientiousness	0.803	5
Extraversion	0.715	5
Agreeableness	0.806	5
Neuroticism	0.710	5

### 3.7 Research Instrument

The quantitative approach had been used to the research with Scales and questionnaires used as an instrument in this study. Three sections (A, B, and C) of a questionnaire made available by the researcher. Three sections comprise the questionnaire: demographic information, performance level, and the greatest influence of personality traits. Section A will use a closed-ended questionnaire, while Sections B and C will use Likert scales which is strongly disagree, disagree, neutral, agree and strongly agree represent by 1 to 5 scale. Surveys are built on questionnaires, and their effectiveness depends on A questionnaire is a useful research tool that consists of a list of inquiries intended to elicit from individuals or groups statistically significant data regarding a particular topic. Surveys need to be properly designed and administered in order to guarantee the reliability and quality of the data collected (Hamed, 2022). In qualitative or quantitative research, a research instrument is a tool used to collect, analyse, and present data in an organised and impartial way. While quantitative research employs a variety of test instruments and inventories to successfully collect and evaluate data, qualitative researchers act as human tools, guiding the research process from data collection to interpretation (Sukmawati, 2023).

### 3.8 Data Analysis

The researcher must arrange and evaluate the data gathered during the data collection phase in order to comprehend it. Data analysis is used to identify study findings and whether the research will fulfill its goals. Data will be gathered from primary sources through the distribution of questionnaires.

#### 3.8.1 Descriptive Analysis

The Statistical Package for Social Sciences (SPSS) Version 26 was used to analyze the survey data for this study. Advanced statistical analysis, a large library of machine learning algorithms, text analysis, open-source extensibility, big data integration, and simple application integration are all features of the SPSS software platform. SPSS is accessible to users of all skill levels because of its ease of use, versatility, and scalability.

#### 3.8.2 Correlation Analysis

The technique of correlation analysis is used to understand the relationship between two variables. The linear correlation coefficient (r) is one such statistic that displays how strongly two variables are related. Although correlation analysis can be linear or non-linear, Senthilnathan (2019) concentrates on linear correlation analysis because it is commonly utilized in social science research. Pearson and Spearman correlations are two typical types of correlation analysis utilized in research. Choosing between Pearson's and Spearman's correlation coefficients is analogous to picking between the median or interquartile range and the mean or standard deviation. Table 3 shows the magnitude of the correlation coefficients.

**Table 3** Correlation coefficient

Correlation Coefficient	Strength Description
±0.81 – ±1.00	Strongest
±0.61 – ±0.80	Strong
±0.41 – ±0.60	Moderate
±0.21 – ±0.40	Weak
±0.00 – ±0.20	Weak to No Relationship

## 4. Results and Discussion

### 4.1 Survey Return Rate

TA target population of 12,533 nurses was established, with a sample size of 370 selected for the study. A total of 344 responses were successfully gathered, resulting in an impressive response rate of 92.97%. The elevated response rate highlights the study's significance to the participants and indicates that the results are indicative of the nursing population in Johor. The survey response rate is summarized in Table 4.

**Table 4** Survey Return Rate

Population	Sample Size	Questionnaire distributed	Questionnaire Received	Percentage (%)
12,533	370	370	344	92.97

### 4.2 Reliability Analysis

The study examined the Big Five; openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism. Each feature was tested with a set number of items, and Cronbach's Alpha values were calculated to assess internal consistency. All traits had Cronbach's Alpha values between 0.805 and 0.899, indicating high reliability.

Based on five items, Openness to Experience had a Cronbach's Alpha of 0.831, measuring an individual's willingness to try new things. A high level of internal consistency suggests that the questions used to assess this attribute are closely related and capture the essence of open-mindedness. Conscientiousness, defined as self-discipline and goal-setting, has a Cronbach's Alpha of 0.858, proving the study's evaluation methods' reliability. Extraversion, which includes friendliness and assertiveness, had a lower but still respectable Cronbach's Alpha of 0.819 across five items. This score suggests that extraversion items are consistent enough to make significant inferences about social behavior. Agreeableness, which includes friendliness and cooperation, had a Cronbach's Alpha of 0.848, indicating its reliability. Neuroticism, which includes anxiety and emotional instability, had the lowest Cronbach's Alpha, 0.805. This number is above the 0.70 criterion for good reliability, but it suggests that items measuring this feature may have slightly lower internal consistency. However, the findings suggest that this study's metrics are reliable and accurate. Table 5 shows the result for reliability test for all variables.

**Table 5** Reliability coefficient value

Variables	Cronbach's Alpha	No. item
Level of Performance	0.899	8
Openness to Experience	0.831	5
Conscientiousness	0.858	5
Extraversion	0.819	5
Agreeableness	0.848	5
Neuroticism	0.805	5

### 4.3 Demographic Analysis

The gender distribution indicates a slight majority of female respondents at 54.36%, while male respondents comprise 45.64%. The majority of respondents, 54.65%, are single in terms of marital status. Married individuals constitute 40.99% of the respondents, while those who are widowed account for 2.03% and divorced individuals represent 2.33%. The respondents are geographically distributed across various districts, with Johor Bahru and Batu Pahat each accounting for 19.48% of the total population. Additional districts, including Pontian (9.88%) and Kulai Jaya (12.79%), further enhance the diversity of the sample. The information regarding job experience enhances the demographic profile.

Approximately 33.14% of respondents possess 5 to 10 years of experience, whereas 24.71% have less than 5 years of experience. In contrast, individuals with over 20 years of experience represent 14.83% of the sample. A significant proportion of individuals are employed in government hospitals (58.72%), whereas 41.28% are engaged in private institutions. the Nurse Leader job, 15% of those who answered are in this group. Next, 16% of those who answered say they are Nurse Managers. Twenty percent of those who answered are in the Specialist Nurse group. Coordinator Nurses, who make up 28% of responders, make up the largest part of the graph. Finally, 21% of those who answered say they are Attending Nurses.

### 4.4 Descriptive Analysis

The item about volunteering outside of work had the highest mean score, 4.12. This shows that nurses are fulfilling their primary duties and ready to improve their comprehensive care. Information and education to patients and families about their condition and treatment options scored 4.08, highlighting the importance of effective communication in improving patient understanding and engagement. Standard deviation values from 1.084 to 1.270 indicate consistent performance, with lower values indicating that most nurses closely match the mean scores. Healthcare relies on consistency to ensure patient safety and satisfaction. The nursing staff's 4.02 average score shows their dedication to quality care.

This analysis highlights the nursing team's strengths and identifies areas for development and training, improving healthcare delivery. Nurses exhibit a strong openness to innovative concepts and techniques, reflected in an overall average score of 3.968. This attribute is particularly significant in the evolving field of healthcare, characterized by the continuous introduction of new procedures and therapies. The willingness to explore various methodologies in patient care (M = 3.90) and the capacity to quickly adapt to changes (M = 3.95) indicate that nurses are both open and proactive in seeking innovative solutions to the challenges they encounter. Conscientiousness is assessed through various metrics, emphasizing the importance of reliability and thoroughness in professional tasks, particularly in patient care. The average score of 4.028 indicates a notable degree of conscientiousness among respondents, underscoring their commitment to maintaining professional standards. The competencies of nurses in social involvement and communication.

The overall average score of 3.838 indicates a strong tendency towards extraversion, with significant aspects like feeling energized during patient interactions (M = 3.91) and effective communication with colleagues (M = 3.83) receiving particularly high ratings. Agreeableness highlights the empathetic nature of nursing professionals. Nurses exhibit an average score of 4.032, reflecting a strong awareness of patient needs and a significant dedication to fostering a healthy workplace atmosphere. Effective collaboration with colleagues (M = 4.14) and the ability to empathize with patients (M = 4.03) indicate a commitment to teamwork and compassion, which are critical components of quality healthcare delivery. Nurses typically demonstrate a high degree of emotional stability, as indicated by an average neuroticism score of 3.814. The individual items indicate the capacity to maintain composure in emergencies (M = 3.85), regulate emotions in challenging circumstances (M = 3.75), and respond to criticism without distress (M = 3.81). Table 6 displays the combined mean and standard deviation of five components.

**Table 6** Summary analysis of the average mean

Item	Average Mean Score	Level
Level Of Performance	4.020	High
Openness to Experience	3.968	High
Conscientiousness	4.028	High
Extraversion	3.838	High
Agreeableness	4.032	High
Neuroticism	3.814	High

### 4.5 Normality Test Analysis

Table 7 shows the results of normality tests performed using the Kolmogorov-Smirnov and Shapiro-Wilk methods. The analysis included 344 respondents, and because the sample size surpassed 50, the Shapiro-Wilk test value was employed. The analysis reveals that the p-values for all variables are below 0.005, specifically 0.000, 0.000, and 0.000. The data exhibit non-normal and non-parametric characteristics.

This study used Spearman's Rho correlation test to assess the relationship between independent and dependent variables.

**Table 7** Normality Test Analysis

	Kolmogorov-Smirnov <sup>a</sup>		Shapiro-Wilk	
	Statistic	df	Statistic	df Sig.
Level of Performance	0.217	344	0.000	0.869
Openness to Experience	0.170	344	0.000	0.888
Conscientiousness	0.224	344	0.000	0.858
Extraversion	0.121	344	0.000	0.938
Agreeableness	0.217	344	0.000	0.860



Neuroticism 0.096 344 0.000 0.946 3440.000

#### 4.6 Correlation Analysis

The Spearman's Correlation Coefficient data are shown in Table 8. According to the findings, shows the level of correlation between all independent variables which are Openness to Experience, Conscientiousness, Extraversion, Agreeableness, Neuroticism, and Level of performance of nurse.

In this research, the correlation coefficient between all independent variables which are strong except for the Correlation between Neuroticism and the Performance of nurses which is moderate.

**Table 8** Result of Spearman's correlation

Item	Correlation Coefficient	Level
Correlation between Openness to Experience and the Performance of nurses.	0.840**	Strong
Correlation between Conscientiousness and the Performance of nurses.	0.797**	Strong
Correlation between Extraversion and the Performance of nurses.	0.754**	Strong
Correlation between Agreeableness and the Performance of nurses.	0.814**	Strong
Correlation between Neuroticism and the Performance of nurses.	0.681**	Moderate

#### 5. Conclusion

The study aimed to understand the efficiency, effectiveness, and overall contribution of hospital nurses in Johor to healthcare provision, focusing on determining the level of performance achieved by these nurses. The findings indicate that various factors influence the performance level of nurses, including their work environment, skill proficiency, and available resources. While many nurses demonstrate impressive professionalism and commitment, there remain aspects that require enhancement. These areas encompass ensuring uniformity in task execution and fostering collaborative efforts even in challenging situations.

The findings emphasize the importance of ongoing professional development, nurturing work environments, and effective resource management in enhancing the performance of nurses. Enhancing the quality of care delivered to patients and the overall healthcare outcomes in Johor will ultimately stem from fortifying these areas. A lower level of job performance was observed among nurses in Johor when compared to the study that was carried out in Batticaloa, which is located in Sri Lanka. As a consequence of this, it is clear that the performance of nurses in Batticaloa, Sri Lanka is significantly higher than that of nurses in Johor Province.

This study aimed to investigate the potential correlation between different personality traits and the performance of hospital nurses in Johor. The personality traits encompass openness, conscientiousness, extraversion, agreeableness, and neuroticism. As a result of these findings, the importance of personality traits in influencing various aspects of nurse performance, such as task efficiency, teamwork, and adaptability in high-pressure healthcare environments, has been brought to light.

The discovery that traits like openness to experience and agreeableness hold particular significance highlights the robust connection these traits share with reliable and high-quality performance. The findings hold significant implications for the approaches to recruitment, training, and professional growth within the healthcare sector. They guarantee that hospitals can develop a workforce equipped to deliver outstanding patient care.

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#### Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

#### Author Contribution

*The authors confirm contribution to the paper as follows: **study conception and design:** Lucius Tan Yong Hung and Shahrul Nizam Salahudin; **data collection:** Lucius Tan Yong Hung and Shahrul Nizam Salahudin; **analysis and interpretation of results:** Lucius Tan Yong Hung and Shahrul Nizam Salahudin; **draft manuscript preparation:** Lucius Tan Yong Hung and Shahrul Nizam Salahudin. All authors reviewed the results and approved the final version of the manuscript.*

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