

## ORIGINAL ARTICLE

## Assessment of Personality Traits and Job Satisfaction in Surgeons: A Correlational Study

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### ABSTRACT

**Objective:** The purpose of this study was to assess and correlate the Personality Traits with Job Satisfaction level of Surgeons in Pakistan.

**Study Design:** Quantitative, Correlational study

**Place and Duration of Study:** The study was conducted at 8 Teaching Hospitals of Rawalpindi and Islamabad from 17<sup>th</sup> January to 17<sup>th</sup> June 2017.

**Materials and Methods:** A total of 132 surgeons were selected by convenient sampling. Big Five Inventory (BFI) for personality assessment and Minnesota Satisfaction Questionnaire (MSQ) for job satisfaction were used. Data collected from 105 surgeons was analyzed on SPSS version 21. Correlation coefficient for each Personality factor with Job satisfaction was calculated using Pearson's test.

**Results:** The mean job satisfaction level of surgeons included in our study was  $73.828 \pm 11.68$ . The mean Likert score for personality using BFI was highest for Agreeableness (4.00) followed by Conscientiousness (3.75), Openness (3.54) and Extraversion (3.37) and was lowest for Neuroticism (2.52). Pearson's test showed a positive correlation of Agreeableness, Extraversion and Conscientiousness and a Negative correlation of Openness and Neuroticism with Job satisfaction level of surgeons in Pakistan. Among these the positive correlation of Agreeableness ( $r=0.32$ ,  $p$ -value=0.001) and a negative correlation of Neuroticism ( $r=-0.21$ ,  $p$ -value=0.027) was statistically significant.

**Conclusion:** The overall Job satisfaction level of Surgeons in Pakistan is towards the positive side. The surgeons assessed in our study had a balance of different personality traits with the value being highest for Agreeableness and lowest for Neuroticism. The personality traits of Agreeableness and Neuroticism strongly correlate with job satisfaction.

**Key Words:** Job satisfaction, Personality, Surgeons.

### Introduction:

Personality is defined as the characteristics and behaviors that define a person. It is made up of a combination of different elements and is influenced by a variety of factors which include early childhood experiences, relationships, life events, education, society, culture and genetic factors.<sup>1</sup> Job Satisfaction is a measure of how happy or satisfied an employee is while working in an organization. Studies show that a doctor's performance is linked to his job

satisfaction and both of these factors are also influenced by personality.<sup>2</sup> Surgery is a demanding field with long working hours and a variety of stresses that requires dedication, devotion and a strong personality.<sup>3</sup> It is anticipated that people who cannot sustain this stress will be dissatisfied in this profession. Research shows that the job satisfaction level of surgeons is on the decline and many surgeons complain of fatigue and burn out.<sup>4</sup> Selecting and training only those, who have the right aptitude for a specialty is a novel idea.<sup>5</sup> Although studies have been conducted internationally on the personality traits of surgeons and as well as on their job satisfaction. Limited literature is available that correlates these two aspects. This aspect needs exploration and a relationship needs to be established. Differences in social upbringing, training, inhospitable and sometimes hostile hospital environment and ill developed service structure of the surgeons working in Pakistan means

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Funding Source: NIL; Conflict of Interest: NIL

Received: December 06, 2017; Revised: July 04, 2020

Accepted: July 04, 2020

that the results of our study could be different from studies carried out internationally.<sup>6</sup> The study will guide us about the suitability of different personality traits for surgical specialty. This will in turn help in career counselling of future specialists and in making placement decisions.<sup>7</sup> Incorporating personality testing into the selection and recruitment process will help in choosing 'the right person for the right job'. This would result in better performance and better job satisfaction of our surgeons and will directly affect patient outcomes.<sup>8,9,10</sup>

### Materials and Methods

A Quantitative, Correlational study was carried out among the FCPS qualified General Surgeons and Sub-specialists (Urologists, Thoracic, Vascular, Orthopedic, Pediatric, Plastic, Cardiac and Neuro Surgeons) working at eight Public, Private and Military Hospitals of Rawalpindi and Islamabad (Combined Military Hospital, Military Hospital, Armed Forces Institute of Urology, Armed Forces Institute of Cardiology, Pakistan Institute of Medical Sciences, Pakistan Railway hospital, Fauji Foundation Hospital and Benazir Bhutto Hospital) from 17<sup>th</sup> January to 17<sup>th</sup> Jun 2017.

The ethical approval was obtained from the "Ethics Review Committee (ERC) RIPHAH University". Informed written consent was taken from each of the participant on a pre designed proforma. Permission to carry out the study among the surgeons working at the hospital was also obtained from the MS/Commandants of the respective Hospitals/ Institutes. Confidentiality and anonymity was strictly maintained and guaranteed to all of the participants. The sample size was calculated using the sample size calculator. The accessible number of surgeons in hospitals of Rawalpindi and Islamabad was 200. Keeping the confidence interval at 95% and a 5% margin of error the recommended sample size was calculated as 132. Convenient sampling was done to select 132 FCPS qualified male and female General surgeons and Sub specialists. The FCPS part 2 trainees, non FCPS qualified surgeons, retired and non-practicing surgeons were excluded from the study. The participants were contacted via personal visits, phone call or email and were briefed about the purpose and nature of the study followed by distribution of questionnaires via email or hard copies. After collecting the filled questionnaires 7

forms that were incompletely filled were excluded from the study. 20 of the participants did not return the questionnaire so the final data of 105 surgeons (93 males, 12 females) was entered in SPSS version 21 for analysis.

The Personality assessment was made using the 44 item Big five inventory.<sup>11</sup> The Job satisfaction level of the surgeons was assessed using the 20 item short form version of Minnesota satisfaction questionnaire.<sup>16</sup> Both the instruments are widely used, reliable and valid tools. The surgeons rated themselves for each item on a Likert scale of 1 to 5 in both the questionnaires. The mean Likert score and SD of each item and the mean of each scale were calculated. All the 5 factors of personality acted as independent variables whereas the job satisfaction was the dependent variable. Correlation coefficient for each personality factor with the job satisfaction was calculated using Pearson's test. Significance for each correlation was calculated. A *p* value of less than 0.05 was considered significant.

### Results

The filled questionnaires from 105 surgeons were analyzed having 93 males and 12 females (Table I). The study included both General surgeons and Subspecialists (Table II). The mean age of the surgeons was 40.38 (std. deviation 7.369) with a minimum age of 30 years and a maximum age of 59 years (Table III). The Mean Working hours per day were 11 hours with a minimum of 6 and a maximum of 18 hours per day (Table III). Mean experience in year's post FCPS was 9.50 years with a minimum of 1 and a maximum of 31 years (Table III). Table IV gives the number of surgeons included from each hospital.

**Table I: Gender Distribution among the Sample Population**

Gender		
	Frequency	Percent
Male	93	88.6
Female	12	11.4
Total	105	100.0

The mean Job Satisfaction level was 3.691/ 5 ± 0.584. The mean overall score of the Job Satisfaction in MSQ was 73.828/100 with a Std. deviation of 11.686. The minimum score obtained was 43/100 while the maximum was 99/100.

The mean Likert score was highest for Agreeableness

**Table II: Frequency of General Surgeons and Subspecialists in the Sample Population**

	Specialty	
	Frequency	Percent
General Surgery	72	68.6
Thoracic Surgery	2	1.9
Plastic Surgery	4	3.8
Cardiac Surgery	6	5.7
Vascular Surgery	2	1.9
Orthopedic Surgery	6	5.7
Neuro Surgery	3	2.9
Urology	7	6.7
Pediatric Surgery	3	2.9
Total	105	100.0

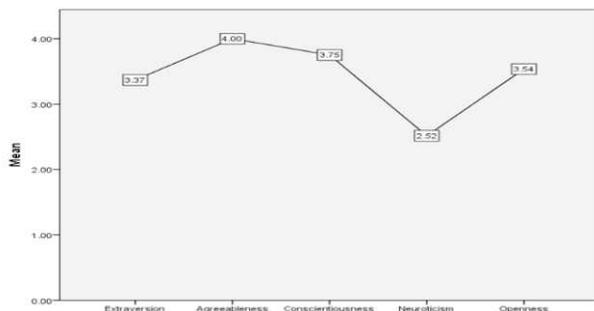
**Table III: Age, Working Hours per Day and Years of Experience Post FCPS of the Sample Population**

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Age	105	30	59	40.38	7.369
Working Hours per day	105	6	18	11.10	2.921
Years of experience post FCPS	105	1	31	9.50	7.486

**Table IV: Hospital Setting of the Surgeons**

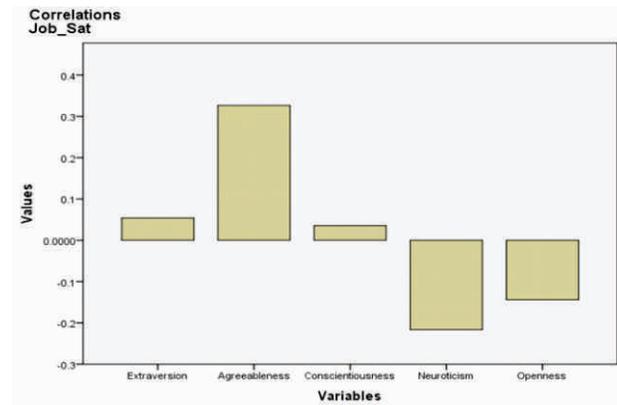
Hospital	Frequency	Percent
Combined Military Hospital Rawalpindi	18	17.1
Military Hospital Rawalpindi	7	6.7
Armed Forces Institute of Urology	6	5.7
Armed Forces Institute of Cardiology	7	6.7
Railway Hospital Rawalpindi	6	5.7
Fauji Foundation Hospital	14	13.3
Pakistan Institute of Medical Sciences Islamabad	31	29.5
Benazir Bhutto Hospital Rawalpindi	16	15.2
Total	105	100.0

(4.00) followed by Conscientiousness (3.75), Openness (3.54) and Extraversion (3.37) and was lowest for Neuroticism (2.52) (Figure I).



**Fig 1: Graph Showing the Mean Likert Scores of Independent Variables (Personality Factors)**

The correlation coefficient calculated by the Pearson's test showed an r value that is positive for Agreeableness (r= 0.327), Extraversion (r= 0.054) and Conscientiousness (r= 0.035); and is negative for Openness (r= -0.144) and Neuroticism (r= -0.217). This shows that there is a Positive correlation between three of the Personality factors (Agreeableness, Extraversion and Conscientiousness) and Job Satisfaction; and there is a Negative correlation between two Personality factors (Openness, Neuroticism) and Job satisfaction level of Surgeons in Pakistan (Figure II). The r value for Agreeableness (r=0.327) was more than 0.3 which indicates a strongly positive correlation. The p-value for Agreeableness (0.001) and Neuroticism (0.027) was 0.05 which shows a statistically significant relationship.



**Fig 2: Graph Showing the Correlation Coefficient of Personality Traits with Job Satisfaction Level**

**Discussion**

The results of our study support the relationship of personality with the job satisfaction level of surgeons in Pakistan.<sup>12</sup> The mean job satisfaction was 73.828/100 ± 11.68 implying that the surgeons included in our study had an 'Average degree of Job satisfaction' as measured by the MSQ ( 75=High, 25-74=Average, 25=Low) showing thereby that the job satisfaction level of surgeons in Pakistan is towards the positive side and is better as compared to studies carried out elsewhere.<sup>4,8</sup>

The means of the Likert score for the five personality variables using the BFI showed that the surgeons included in our study had a balance of different personality traits with the value being highest for Agreeableness and lowest for Neuroticism. The values are comparable to a study that compared the personality traits of surgeons and non-surgeons at

different career points which were; Conscientiousness 4.30, Agreeableness 3.76, Openness 3.75, extraversion 3.74 and Neuroticism 2.46.<sup>3</sup> The results of our study show a positive correlation between the personality traits of Agreeableness, Extraversion and Conscientiousness and a negative correlation between Openness and Neuroticism with the job satisfaction level. Agreeableness and Neuroticism strongly correlate with job satisfaction as per our results. This implies that surgeons who are high on the scale of Neuroticism are dissatisfied with their job and those who are low on the scale of Neuroticism are more satisfied. Conversely, the higher someone is on the scale of Agreeableness the more satisfied he is. This can be compared with the results of a meta-analysis relating the Big Five traits to job satisfaction which showed that Neuroticism correlates strongly with job satisfaction, followed closely by Conscientiousness and Extraversion. Agreeableness and Openness to Experience showed a weak correlation with job satisfaction.<sup>12</sup>

Our result for Agreeableness show a fairly strong and statistically significant correlation which is different from studies carried out elsewhere according to which conscientiousness and extraversion are the strongest predictors of job satisfaction in surgeons.<sup>8</sup> The facets grouped under agreeableness are; trust, altruism, compliance, modesty, kindness, cooperation, empathy helpfulness and tender-mindedness compliance. They get along well with others and are more likely to control negative emotions like anger in conflict situations. This can be explained on the basis of our social and cultural structure. Family values, relationships and traditions are given a high place in our society. Surgeons possessing such attributes will most likely be satisfied in their jobs.<sup>13</sup> However those lacking these traits can face adjustment issues and decreased satisfaction level.<sup>14</sup> Our results also showed a weakly positive correlation between Conscientiousness, Extraversion and job satisfaction. This aspect needs further exploration as according to many international studies including one on trauma surgeons; the personality trait of extraversion strongly correlates with academic/profession performance and job satisfaction.<sup>8</sup> The other surprising finding in our study is the negative

correlation of Openness with job satisfaction. This can probably be due to the influence of departmental or administrative restraints and a lack of research and discovery culture in our hospitals and society. Openness involves six facets including active imagination, aesthetic sensitivity, awareness about own feelings, preference for variety, experience seeking and intellectual curiosity. People who score low on openness are considered conventional, traditional and closed to experience<sup>6</sup>. They prefer routine to new experiences and have a narrower range of interests. Surgeons who like to introduce new techniques or procedures, want to bring change to the existing systems, introduce new and evidence based teachings and have an innovative nature are always met with resistance and are seldom supported by the administration or seniors. This causes frustration and makes them disillusioned. This fact has been highlighted in our study. People who are high on the score of openness are dissatisfied and those low on the score of openness are satisfied with their profession.<sup>15</sup> Limitations of our study can be the bias caused by the element of faking by the participants. They are satisfied with their profession.<sup>15</sup> This means that surgeons having conventional ideas and those that stick to the routine without taking risks will generally remain satisfied with their jobs. The results of job satisfaction can be affected by mood and problems faced by the surgeons at that point of time, both at personal and professional level. Similarly the results can differ among the surgeons working in public, private and military hospitals as the workload, clientele, service structure, perks, privileges, security and professional development opportunities are different among these setups and this aspect needs further exploration.<sup>16,17,18</sup>

## Conclusion

We can conclude by saying that personality plays a significant role in the job satisfaction of surgeons in practice. The results of our study show that the overall Job satisfaction level of Surgeons in Pakistan is towards the positive side. The surgeons assessed in our study had a balance of different personality traits with the value being highest for Agreeableness and lowest for Neuroticism and these two personality traits strongly correlate with job satisfaction level. Our study shows that the personality traits of Agreeableness, Extraversion and Conscientiousness

are more suited for surgical practice as these factors correlate positively while Neuroticism and Openness correlate negatively with job satisfaction of Surgeons in Pakistan. We recommend that the assessment of personality should be incorporated in the selection process and for career counseling of aspiring surgeons. Educational programs should be developed that can help to enhance the personality attributes that are necessary for success in the surgical practice.

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