

**PERSONALITY TRAITS & CAREER SATISFACTION: MEDIATING ROLE OF
CAREER COMMITMENT**



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CAREER COMMITMENT**

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DECLARATION

It is to certify that this is the original copy of dissertation entitled “Personality Traits and Career Satisfaction: Mediating Role of Career Commitment” completed by Ms Ayla Khan under the supervision of Dr. Saeeda Khanum as per requirement of the degree of MS Career Counselling and Education. I, Ms. Ayla Khan, hereby declare that it is my original work and all the sources that I have used or quoted have been indicated and acknowledged with help of references and proper citations.

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LANGUAGE CORRECTNESS CERTIFICATE

This thesis has been read by an English expert and is free of typing, syntax, semantic, grammatical and spelling mistakes. Thesis is also according to the format given by the university.

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Dedicated to My Parents, Teachers and Friends

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List of Abbreviation

ASA – Model	Attraction Selection Attrition Model
P-O Fit	Person Organization Fit
FFM	Five Factor Model
FCPS	Fellow of the college of Physicians and Surgeons
BFI	Big Five Inventory
CSS	Career Satisfaction scale
CCSLF	Career Commitment Scale-Long Form

Abstract

The present study examined the relationship among personality traits, career satisfaction and career commitment of medical doctors. It was a co-relational study and the survey technique was used for collecting the data from doctors working in government and private hospitals of Islamabad. Three assessment measures were used along with demographic sheet; Big Five Inventory (John, Naumann & Soto, 2008) to measure personality traits, Career Satisfaction Scale (Greenhaus, Parasuraman & Wormley, 1990) to measure career satisfaction and Career Commitment Scale-Long Form (Colarelli & Bishop, 1990) was used to determine the level of career satisfaction. Sample of the study (N=300) comprised of medical doctors from government and private hospitals of Islamabad. Data were analyzed by using the SPSS (statistical package for social sciences). Findings of the study suggested that conscientiousness, extroversion and agreeableness traits were positively correlated while neuroticism trait was negatively correlated to career satisfaction and career commitment of medical doctors. Career satisfaction and career commitment of medical doctors were positively correlated with each other. Career commitment acted as a mediator between personality traits and career satisfaction of medical doctors. Research findings provided insight to career counselors in guiding the client about the health profession on the basis of personality traits.

Keywords: Personality, career satisfaction, career commitment, extroversion, agreeableness, openness to experience, neuroticism and conscientiousness.

Introduction

Introduction

The current research objective is to study the correlation among traits of personality and satisfaction within a career and observe the mediating effect of career commitment in predicting the correlation between personality traits and career satisfaction of medical doctors working in government and private hospitals of Islamabad.

Traits of personality act as important predictor of career selection choices and it has huge impact on career satisfaction (Ijaz & Khan, 2015). Career choice is one of the major events in an individual's life and a person's success and satisfaction is highly dependent upon accurate selection of career choice. Due to rapid global changes in technology and economic sector, the field work is also facing prompt changes due to which scholars face difficulty in understanding the traditional concept of career development of employment, education and retirement (Brown & Lent, 2000; Madaukalom, 2010). The transition from educational institutions to the working field may be a perplexing experience for youngsters if they are unable to find an employment relevant to their career goals.

Employee satisfaction plays crucial part within an organization success and medicine is no exception. Doctors' training is time-taking and demanding. It is costly for both the trainee and for people in general. Doctors' degree depends upon the time, effort and money. But if doctors are not satisfied with their job that is directly linked with commitment, then health industry may suffer from losing valuable doctors to other countries (Sharma, Lambert & Goldacre, 2012). Doctors' career satisfaction is imperative for health industry to guarantee commitment, effective training, provision of services and retention.

Hirschi, Herrmann and Keller (2015) cited that strong connection was found among types of personality and career choices but during training wrong career choices are made because of the obliviousness of particular personality type of the individuals.

Commitment level of an employee within an organization and satisfaction with career assume a focal part of their retention in the field of healthcare practice, as a disappointed worker will probably leave the healthcare field. The pressure and demands that are applied on the

healthcare practitioners is to such an extent that turnover could be higher by a great degree if workers are not happy with their job or career (Ganu & Kogutu, 2014). If specialists' personality traits match with their career, then they are more committed to attain career satisfaction.

Variables of Study

1.1 Personality

Personality is a broad concept; and is describe by different approaches. History of the term personality came from ancient Greek; meaning a “mask” that an artist wore in the theater during acting multiple roles representing different characters (Engler, 2013). Earlier psychologists like Allport (1961), described that personality is characterized as dynamic system, in which psychosocial system of person develops characteristic patterns of behavior, thoughts and feelings. In 1960s, a lot of work was done on personality traits and traits were considered as part of personality definition and this concept is still followed.

Personality is described as traits that are more or less stable (Zafar & Menasha, 2012). In simple words, personality is the pool of intrinsic and extrinsic traits that affect individuals' behavior. Traits play a major role in understanding the personality of person.

1.1.1. Theories of Personality

Personality psychologist proposed different theories of personality other than the trait theory. Main purpose of these theories is to systematically organize the diverse traits present in individuals, describe major differences in the characteristics of different personalities, explore the different personalities of individuals and suggest how life of individuals can be improved by analyzing the different personalities (Kasschau, 2000). Main approaches of personality are type approach, trait approach, psychoanalytical approach, humanistic approach, behavioral/learning approach, social cognitive approach and biological/genetics perspective.

Type approach mainly focused on an individual's characteristics (stubbornness, shyness) and how these characteristics are linked into systems. Hippocrates (400 BC) and Galen (120 AD) were the pioneers of the type approach of personality. He divided people into four temperament types: Phlegmatic are generally calm and unexcitable; choleric with angry temperament; melancholic are depressive and moron and Sanguine are cheerful and optimistic (Merenda, 2010; Psychology Encyclopedia, 2010). Psychoanalytical approach deals with unconscious process, motives, impulses and psychological processes. Sigmund Freud proposed the psychoanalytic theory in the

early 1900. Psychoanalytic approach has following key parts; motive force, structure of personality, topographical aspect and psychosexual development.

Humanistic approach deals with the capacity of an individual to grow and emphasizes on individual's basic needs and their tendency to grow to higher level of functioning. Carl Rogers (1971) is one of the major followers of humanistic approach. Roger's suggested that people have a desire for positive regard that reflects general requirements to be loved and respected. While social cognitive theories deals with the issues that how social and cognitive processes affect the individual's behaviors.

Behavioral approach recommends that personality is shaped due to interaction between individual and environment. On the other hand, biological/genetic approach claims that genes are responsible for human behavior. Eysenck was one of the best known biological theorists who associated personality to biological process. And in the last trait approach claims that personality can be measured by classifying different traits of individuals (Cherry, 2018).

1.1.2. Trait Theories

According to Robbins et al. (2013) personality is often described as- a set of measurable traits that a person exhibits. Trait theories of personality assumes that, personality traits are inherent, relatively stable and unchanged throughout a person's life time, and determine a person's behavior (Brooks, 2008). There are a number of theories on personality traits. Major Trait Theories are based on two assumptions. The first is that all traits are applied on all people meaning individuals can be ranked as low or high in specific traits but traits exist in all individuals. The second assumption is that the traits are measurable and quantifiable (Kasschau, 2000).

Researchers have reported the traits of personality in different ways. Gordon Allport is considered as the pioneer researcher to discover the Personality Traits in 1936- 1960. In 1936, Allport proposed the concept of trait theory and divided the 4000 personality defining words into three categories as central, secondary and cardinal traits. Central traits are the common features that build the personality basics and secondary traits are the representation of preferences and attitudes. While cardinals are traits that dominate the individual's whole life span. The work on personality dimensions of Allport was further refined by Raymond Cattell. He used factor analysis technique to present personality characteristics. Cattell reduced the initial list of Allport personality

traits from 4000 to 171 and explained the 16 primary and 5 secondary factors of personality. According to Cattell (1950) these traits are the representation of human personality. Following Cattell, Eysenck also used the factor analysis to identify personality traits. He presented the model with two super-traits in 1975: Extraversion vs. Introversion discusses about which one is social, outgoing and open and Stability vs. Instability measure to what level an individual has control over their emotions. Later on, he identified another trait named as Psychoticism in 1982 which refers to the degree to be antisocial, caring or aggressive.

Afterwards personality psychology felt the need of taxonomy that allows researchers to study the main facets of personality features rather than examining the thousands of personality traits separately. After several decades, there is consensus on the dimensions of personality and the term “Big Five” is now used as a result of extensive research on psychology of personality. This concept works as integrative function as it is the representation of diverse and various personality traits description in the common framework.

1.1.3. Big Five Personality Traits

Five-factor personality is the established framework of personality proposed by Lewis Goldberg in 1960s. Goldberg identified extroversion, agreeableness, conscientiousness, neuroticism and openness to experience as prime components of personality. Two famous researchers, Paul Costa and Robert McCrae also worked on big five and confirmed the model validity. This framework was labelled as “Big Five” and described multiple personalities in numerous regions and cultures. “OCEAN” is famous acronym of Big Five. Detail of five features are given below

1. **Openness to experience** is related to entity’s desire to make effort for new things, to be susceptible, and think beyond the box. It is often known as intellect or imagination. Openness to experience includes common traits such as imaginative, insightful, original, creative, curious and clever. People having this trait possesses a deductive capacity to investigate problems which comprises of characteristics like being creative, philosophical, tolerant and inquisitive (Hossain & Siddique, 2012). A person who scores higher has affection for knowledge, appreciates human expressions, takes part in inventive tasks or interest, and enjoys gathering with new individuals (Lebowitz, 2016).

2. **Conscientiousness** is the ability to control desires and behave in acceptable ways, show behavior that smooth goal-directed behavior (John & Srivastava, 1999). Conscientiousness factors includes determined, motivated, in-depth, self-disciplined, reliable, predictable, energetic and preserving traits. The conscientious employee endures until the job is finished (John & Srivastava, 1999, cited in Ganu & Kogutu, 2014). That is the reason this individual is considered as the steadiest indicator of performance crosswise over employments.
3. **Extroversion** means how individuals interact with others and utilize their energy. Extrovert attributes include being active, garrulity, social balance, self-assuredness, and getting a charge out of being in social circumstances (Carpenter, Bauer & Erdogan, 2010). This trait has two dimensions: extroversion and introversion. Overall, extrovert get “recharge” by intermingling with others and sharing their thoughts. On the contrary introverts are becoming bored in gatherings and feeling full when they are alone. Individuals high in extroversion are comfortable in social gathering, expressive and inclined to activity as opposed to consideration (Lebowitz, 2016) while individuals low in extroversion will probably be individuals "of few words”, tranquil, reflective, hoarded and observant.
4. **Agreeableness** means how well individuals behave with others. Following qualities like altruistic, gullible, modest, persistent, kind, well-mannered, trustworthy, cheerful came in the agreeableness. Agreeable individuals are generally sympathetic for others, always ready for their help and in return want the same behavior while those on the lowest level of agreeableness are individuals who are antagonistic, egocentric and competitive instead of cooperative. According to personality psychologists agreeableness is the most divisive trait of Big Five Personality Traits (McCrae & Costa, 1997).
5. **Neuroticism** is mostly described as low level of emotional stability. Neuroticism is described as an individual tends to face sorrow and emotionally unstable (Costa & McCrae, 1992). Traits such as moody, jealous, nervous, anxious, timid and insecure fall under the category of neuroticism. Individuals’ scoring high on neuroticism trait are more able to be irritable than normal and experience negative feelings such as stiffness, anxiety, distress,

outrage, regret, grudge, envy, guilt, disheartened state of mind and depression (Jeronimus, Riese, Sanderman & Ormel, 2014).

1.1.4. Criticism on Big Five Personality Model

There are multiple researchers who claimed that Big Five Personality model is not a true representation of personality, some criticized that five traits are not adequate and they presented alternative models while others argued on the integrity of model (Briggs, 1989; Hogan, Jackson & Paunonen, 1980; McAdams, 1992; Waller & Ben-Porath, 1987). But with all the criticism, big five model is generally accepted and agreed taxonomy of personality. Because there are sufficient evidences that prove Big Five Personality Model as the most authenticated, most widely used and most widely cited model to measure personality (Armon, Shirom, & Melamed, 2012; Celik & Oral, 2016; Kisten & Kluyts, 2018; Wolff & Kim, 2012; Wortman, Lucas, & Donnellan, 2012;).

1.2 Career satisfaction

It is a significant construct for study as it deals with the subjective feeling and is based on different factors of work behavior and well-being. Greenhaus, Parasuraman and Wormley (1990) defined satisfaction in career as satisfaction level that is actually derived from the career extrinsic and intrinsic facets and it includes salary, progression and opportunities for development. Jen-Ruei Fu (2010) mentioned that the overall happiness level once experienced during career selection choice is known as career satisfaction. Employee' satisfaction in career is the representation of feelings about career related goals, achievements and undertaking. Barnett and Bradley (2007) described resources, provision of material and social support in fulfilling employee's personal goals are considered as major predictors of career satisfaction.

1.3 Career Commitment

According to Cohen (2003), in 1950s, the concept of career commitment attained attention in academicians and practitioners. Different concepts were suggested to understand "career commitment". The term "side-bets" is used to explain career commitment. The side-bets approach explains that when he/she leaves the career or organization, value of accretion of asset by a person will also be lost (Becker & Carper, 1956). Greenhaus (1971) also did pioneering work and defined the term "career salience" which means how much a person provides importance and gives meaning to his/her work. One's level of motivation towards work in choosing the career is known

as career commitment (Hall, 1971). Furthermore, Blau (1985) suggested that one's motivation towards profession is career commitment. Professionals whose personality traits match with their profession are more committed and satisfied as compared to those whose personality traits do not match with their profession who have lower career commitment and are less satisfied. Chung (2002) mentioned that career commitment is the measurement through which individuals gain meaningful career by giving value to career planning.

1.4 Literature Review

1.4.1. Personality traits & Career Satisfaction

The most studied variable in social sciences are personality traits but its relationship with career satisfaction and career commitment seems to be little in previous studies. Various studies are conducted by academicians and researchers in the past to determine the traits of personality importance within career success (Wille, Fruyt & Feys, 2013), job performance (Judge & Zapata, 2015), citizenship behavior within organization (Kumar, Bakshi & Rani, 2009) and burnout (Alarcon, Eschleman & Bowling, 2009). Williamson, Pemberton and Lounsbury (2015) determined the correlation among the personality variables and IT professionals' job and career satisfaction which revealed that significant correlation exists between personality variables and IT professionals' job and career satisfaction.

Ranasinghe and Kottawatta (2016) discussed personality traits influence on job satisfaction within the male and female school teachers of Sri Lanka. 229 school teachers were taken as sample of the study. Study findings confirmed that firstly, big five personality traits and satisfaction in job are interlinked and secondly it has significant impact on the personality traits of both male and female school teachers and their job satisfaction.

Bakotic (2015) discussed the correlation between employees' performance within an organization and job satisfaction and determined the direction and intensity of relationship within the employees of large and medium sized Croatian companies. Study findings confirmed that job satisfaction of employees' and organizational performance are directly related to each other but intensity of relationship between these two variables are weak. In-depth analysis revealed that intensity of correlation among satisfaction in job and employees' progress within organization is higher as compare to organizational performance and job satisfaction. In other words, it highlights that job satisfaction is the predictor of organizational performance.

Ghani, Yunus and Bahry (2016) cited that job performance of employees is necessary to achieve organization mission, goals and objectives. Within an organization, effective leadership play major role in achieving the company targets and goals. This totally depends upon leadership behavior with employee in the working condition. Study was conducted on the government servants working in the public sector of Putrajaya, Malaysia. Study results revealed that there are four traits of leadership personality that are positively related to job performance of employees. These traits are openness, conscientiousness, extroversion and agreeableness. On the other hand, neuroticism is negatively related to employee job performance.

Khizar, Orcullo and Mustafa (2016) studied the satisfaction level of police officers' in relation to personality traits. Data were gathered from 300 senior police officers including both genders. Findings suggested the negative correlation between neuroticism, openness and satisfaction with job while extroversion, agreeableness and conscientiousness are positively correlated with job satisfaction.

Association among traits of personality and satisfaction in career has also been supported by the latest literature in health sector. Kisten and Kluyts (2018) examined the influence of personality traits upon satisfaction level of South African anesthetists. Neuroticism was seemed to be negative predictor of job satisfaction while agreeableness is positively correlated with satisfaction level. Demographic variables such as age, gender and qualification is directly linked with level of satisfaction. An individual cannot be satisfied with all facets of his job at one moment. However, physician's satisfaction from his job significantly improves his services and vice versa (Sharma, Goel, Singh, Sharma & Gupta, 2014). Doctor's behavior with peers and physician patient relation is basically reliant upon level of his career satisfaction. Atif, Khan and Maqbool (2015) studied satisfaction level among doctors of tertiary care hospital of Lahore and determined its correlation with demographic variables. The findings established significant correlation between age group, education, income and job satisfaction of doctors while gender has no significant impact upon doctors. Similarly, another research in a tertiary care hospital of eastern India to determine satisfaction level among doctors revealed that more than half of the doctors were satisfied with their job (Bhattacharjee et.al. 2016).

Ganu and Kogutu (2014) analyzed impact of health-care workers' personality traits on job satisfaction and organizational commitment. Responses were taken from 252 healthcare employees of Kenya. Health-care workers included health consultants, nurses, chemists, and lab

technicians. Study noted significant relationship between traits of personality, job satisfaction and organizational commitment. There was positive association between organizational commitment, openness, conscientiousness and neuroticism traits. On the other hand, extroversion and neuroticism are also positively related to job satisfaction. Moreover there was progressive correlation among commitment in organization and satisfaction with job. This study suggested that employees possessing traits of openness, neuroticism, extroversion and conscientiousness have higher sense of commitment and job satisfaction within Healthcare sector.

Mullola et.al (2018) studied about career choices and personality traits among Finnish physicians. Physicians who were practicing in private setup and specialized in psychiatry possessed higher openness trait whereas low level of openness trait was present in those physicians who had greater contact with patients and specialized in general practice, ophthalmology and otorhinolaryngology. Conscientiousness was high among those surgeons who had greater contact with patients and internal medicine specialties while conscientiousness level was lower in psychiatrist and those belonging to hospital service specialties. Agreeableness trait was high among those who are linked with private setup and specialized in general practice and occupational health while agreeableness and neuroticism were low in surgeons. Pediatricians possessed higher extroversion and lower extroversion was linked to those who are not practicing with patients.

Previous studies examined the relationship between personality traits and medical careers of students (Doherty & Nugent, 2011; Wolf & New Port, 2015; Woods, Patterson, Wille & Koczwara, 2016) and a few specialties, mainly surgery (Hoffman & Coons, 2010; Mehmood, Khan, Walsh & Borleffs, 2013) and psychiatry (Bexelius et.al, 2016; Hoffman & Coons, 2010), with partly inconsistent findings (Borges & Savickas, 2002; Mehmood, Khan, Walsh & Borleffs, 2013; Wolf & New Port, 2015). Health students who prefer to go in the field of surgery in comparison to other fields possessed high extroversion (Mehmood, Khan, Walsh & Borleffs, 2013) and lower agreeableness (Bexelius et.al, 2016) but inconsistent differences in neuroticism (Mehmood, Khan, Walsh & Borleffs, 2013). While students who specialized in psychiatry had lower conscientiousness as compared to surgeons (Bexelius et.al, 2016), and higher openness, neuroticism (Maron et.al, 2007) and agreeableness compared with other specialties. It seemed that junior doctors who prefer psychiatry were more likely to switch their career as compared to those who had chosen general practice (Wolf & New Port, 2016).

1.4.2. Personality traits & Career Commitment

Literature supported noteworthy relationship among traits of personality and career commitment of specialists. Arora and Rangnekar (2016) observed the correlation among traits of personality and career commitment. In this study three dynamics of career commitment like career identity, career resilience and career planning are considered in Indian context. Study findings confirmed that agreeableness had positive effect on planning regarding career. One of the significant predictor of career commitment was openness to experience while predictor of career identity was conscientiousness.

Agreeableness is considered to be prime feature of interpersonal attributes amid persons (Sharma, Kaveri & Yadava, 2010). Multiple studies cited affirmative association among agreeableness and career outcomes like career satisfaction (Ng, Eby, Sorensen & Feldman, 2005), career adaptability (Teixeira et al., 2012), and career exploration (Li et al., 2015). Li et al. (2015) found out the predictors of career exploration within a sample of 264 undergraduates students. These students were enrolled in university of North China. According to research findings, conscientiousness was reported as a strong predictor of career exploration. While extroversion & openness to experience strongly predict career identity, career resilience, and career planning.

1.4.3. Relationship between Career Satisfaction & Career Commitment

Satisfaction in career has great significance upon the physical, psychological and social prosperity of an employee. Afonso, Ramos, Saraiva, Moreira and Figueira (2014) mentioned that it has significant impact on employees' output. This basic construct within administrative behavior shows summary of in what manner a person serious about his/her work. According to Kong, Cheung and Song (2012) administrations are serious about development of employees in their career as it is one of the fruitful processes of increasing and retaining workers. Career commitment is driven from career development. Career development has direct influence upon employees' career commitment and career satisfaction (Afonso et al., 2014).

Career commitment has a strong impact upon employees' satisfaction and success within career. Career satisfaction is considered as one of the significant predictors of career commitment in IT professionals. It is associated with positive career outcomes (Jen-Ruei Fu, 2010). Direct impact of career satisfaction on career commitment has been seen in health care executive (Myrtle, Chen, Lui & Fahey, 2011). According to this study, opportunities are creating for individuals due

to organizational changes in finding the career satisfaction that ultimately influences career commitment.

Cristovao (2015) examined the antecedents that cause commitment in entrepreneurs. Survey was conducted to analyze the five constructs namely career commitment, general self-efficacy, career identity, career orientation and career satisfaction. Research findings revealed that entrepreneurs with high level of career orientation, self-efficacy and career identity are more satisfied and committed with their careers as compared to those having low level of career orientation, self-efficacy and career identity. Researchers investigated the impact of personal and contextual characteristics on employee career satisfaction. Joo and Ready (2012) suggested that employees who have higher goal orientation performance possessed higher career satisfaction and in those which received good learning culture and better relationship with boss.

Mafini and Dlodlo (2014) examined the relationship between employee satisfaction, organizational commitment and three work-related factors i-e job security, person environment fit and work-family balance. According to this study, job security and person-environment fit are both positively correlated and predictor of employee satisfaction. However association between employee satisfaction and work family balance was weaker and has no predictive value.

Chen, Tsai and Lei (2013) studied the satisfaction level, commitment and well-being in pediatricians. Survey was conducted to explore Taiwanese pediatricians' life management, career commitment and satisfaction in 79 certified training institutions. Study results declared that pediatricians are not satisfied with their jobs, have poor self-care, low career commitment and wellbeing.

1.4.4. Factors Influencing Doctors' Career Satisfaction & Career Commitment

Lambert, Smith and Michael (2016) examined the factors that influence health practitioners' preferences towards selection of field of specialization during 1-5 years after graduation in U.K. Findings revealed that enthusiasm and career commitment have great influence on career choice during years 1 and 5. Other important factors are hours/working conditions, job experience and self-appraisal of own skills. It seemed that doctors were committed towards the field but stronger issues raised due to domestic concerns, working hour' conditions and economic prospects during years 1- 5.

Surman, Lambert and Goldcre (2015) did survey on doctors in UK. Research was conducted on doctors who received training up to 5 years after graduation. Doctors rated their job

satisfaction and enjoyment on a scale from 1 to 10. 1 is considered as the lowest level of satisfaction and enjoyment while 10 is the highest level of satisfaction and enjoyment. Results indicated an inclination of increasing totals for both constructs i-e enjoyment and leisure. Demographic features like gender, ethnicity and attendance of medical school had no significant impact upon doctors' enjoyment and leisure.

1.4.5. Career Commitment as Mediator

Various studies confirmed the mediating role of career commitment and career satisfaction with different variables. Kim, Kang, Lee and McLean (2015) studied the mediating effect of career commitment as mediator in determining correlation among motivation for training and turn over intention and organization related variables. Responses were gathered from 389 Korean employees which revealed that ethical behavior i-e career success and outcome variables e.g. ambition to participate in training and turnover intentions are fully mediated by career commitment. While career commitment is partially mediated organizational politics and turnover intentions.

Zhang, Wu, Miao, Yan and Peng (2014) examined career commitment as mediator in determining the influence of self-evaluation upon job satisfaction of 312 male Chinese soldiers. Study findings revealed that core self-evaluation and career commitment are significantly correlated with job satisfaction. Further research data revealed that commitment in career moderately mediates the association among job satisfaction and core self-evaluation. Karavardar (2014) investigated career commitment effect on subjective career success in Turkey context by taking career satisfaction as mediator. Study sample was hazelnut processing industry employees of Giresun. Result findings confirmed career satisfaction as mediator in finding the association between career commitment and subjective career success.

Cai, Ocampo, Restubog, Kiazad, Deen and Li (2017) studied organizational commitment as mediator in finding relationship between career commitment and employee-organization framework. Sample of study was 396 chemists and laboratory specialists working in health-care organization of China. Findings revealed that organizational commitment acts as mediator between employee-organization framework and career commitment.

While exploring the previous literature on the relationship between big five personality traits, career commitment and career satisfaction it was found that mostly literature on career satisfaction was found in Germany, US, Turkey and Kuwait context while little work is done on these constructs in the Pakistani context. Most of the studies target different variables along with

personality while very few researches have been found about the career satisfaction, success and career commitment.

Faqeer-Ul-Ummi, Javed and Amjad (2014) examined the impact of personality on career success in the sample of professionals and educators who were employed at different organizational designations. Researchers judged personality by the Big Five personality model and determined the intrinsic career success (life success, job success, fiscal achievement) and extrinsic career success (pay, advancement and rank) in the study. Study findings have shown the insignificant impact of personality, job performance and person environment fit on career success. Researchers of this study argued that in our society, the meaning of success is to earn money only while personal life and interpersonal relationship has less worth in measuring success.

Iqbal, Riffat, Sarim and Siddiq (2014) studied the correlation between the career commitment and employee performance. Study results have established the strong relationship between the career commitment and the employee performance. This research has observed the moderating of job satisfaction whose high or low affection will decide the output of an organization. Ahmad, Ather and Hussain (2014) examined the organizational commitment as mediator which is a multidimensional construct in defining the relationship between big five personality traits and job performance. Researchers developed theoretical model for explaining the mediating effect of organizational commitment on personality performance relationship.

The following research gaps were identified through review of literature review. Several studies have examined the relationship between personality traits and job satisfaction (Gannu & Koguto, 2014; Khizer, Orcullo & Mustafa, 2016; Kisten & Kluyts, 2018) but there were few studies on career satisfaction (Williamson, Pemberton & Lounsbury, 2015). Research on personality traits and career satisfaction has examined different occupational groups across studies. These groups were information technologists, and clericals (Lounsbury et al., 2003), librarians (Williamson, Pemberton & Lounsbury, 2005), managers (Xiong, 2010) and MBA graduates and Engineers (Seibert & Kraimer, 2001). But there was scarcity of work done in the field of medicine. One study was conducted by Garfinkel et.al, (2001) on psychiatrists. In Pakistan, there was no study that examined the relationship between personality traits and career satisfaction of medical doctors. Identified gaps will be bridged by designing the current study to examine the relationship between personality traits and career satisfaction of medical doctors.

1.4 Rationale of study

Analysis of literature has shown that there is scarcity of work done on career satisfaction construct. Previous studies mostly discussed the association among traits of personality and job satisfaction while career satisfaction is not discussed in detail. To the researcher's knowledge, no empirical studies in Pakistan have directly assessed the mediating effect of career commitment in predicting the connection among big five personality traits and career satisfaction of medical doctors. Based on that, this is an important area of research that is worth investigating. By better understanding any potential relationship between these variables, counselors could better serve clients facing dilemmas regarding medical career choices.

In Pakistani context, career satisfaction and commitment construct are not studied in detail. It is evident through literature review that significant relationship was found between the big personality traits, career commitment and career satisfaction but overall these three constructs were not studied yet. Previous literature has highlighted the mediating role of career commitment in predicting job satisfaction (Zhang, Wu, Miao, Yan & Peng, 2014). That's why, linking to this scenario the present study will investigate the relationship between personality traits and career satisfaction through analyzing the mediating effect of career commitment. So, this research will be helpful in finding the relationship between personality traits and career satisfaction of medical doctors.

Medicine profession is considered as highly respectable profession in Pakistan. Huge amount of investment and resources are required in the training of a physician at medical school and further in specialization. This ultimately provides benefit to patients and health-sector of country. However, if they do not achieve a level of satisfaction with their work that is appropriate for their level of commitment, the health service may risk losing their valuable expertise to other countries or other careers. It is essential to make sure the right fit among doctors and their selected fields. Good career planning is highly dependent upon the matching between the job traits and youth personality, so this study will provide help to medical students in taking the good career decision.

Career satisfaction is highly dependent upon how accurately a person chooses his/her career. In recent era changes have taken place in all fields and its effects have also been seen in the working life. Career choice is the developmental process and has deep impact on an individual's entire life. Selection of the right career brings lifetime social and economic stability. Hence it is essential to adopt a career in field of your interest. In Pakistani society, people tend to follow the adopted

practices and that's why majority of the students are pushed to either become doctors or engineers. Those students who are not interested in these professions are told that there is hardly any growth in others career due to which they make wrong career choices. Improper career selection is very harmful for psychological health of those individuals and due to this they will not be able to serve the country in making progress. The findings of this study provide awareness to the career counselors so that they can look in terms of traits before providing guidance to students about the field of medicine.

Significance of Study

The current study determines the relationship between personality traits, career commitment and career satisfaction of professionals. The findings of this study will provide insight to career counselors in guiding the client about career decision-making. As, it is the agenda of the career counseling to provide self-motive help and personality desiring needs that enable the occupants/professionals to develop uniqueness that are necessary for career growth. Study results will facilitate the counselors to guide the students about career on the basis of personality traits.

Good career planning is highly dependent on the matching between job traits and youth personality, so this study will help students in taking good career decision. Right career selection is the base of job/career satisfaction. Further, good career planning will result in good career adjustment. Successful career will boosts the individual's self-esteem and develop sense of belonging in employees and enable individuals to develop good relationship with other society members.

Personality traits bring significant difference in career satisfaction and career commitment of professionals. Present study suggests that recruiters test the personality traits before hiring employees within an organization. It serves as an important tool in the selection and recruitment process of employees and will therefore have a positive impact on organizations performance. It can reduce the costs and turnover rate within organization. The findings of this research will be applicable in the field of education and social sciences.

1.5 Research Questions

Study have been conceptualized with following research questions

1. Is there any relationship between personality traits, career satisfaction and career commitment amongst medical doctors?
2. Does career commitment mediate the relationship between career satisfaction and personality traits of medical doctors?
3. How demographic variables influence the career satisfaction of medical doctors?

1.6 Theoretical Background

This study has theoretical background and evidence embedded in the following theories.

1.6.1. Personality Job Fit Theory

Foundation of current study revolves around the main theme of personality job fit theory. Personality-job fit theory suggests that an individual's personality traits reveal insight about adaptability within an organization. Person-Organization (P-O) fit is thought as degree of harmoniousness between a person and the organization (Anderson, Flynn & Spataro, 2008).

1.6.2. Attraction Selection-Attrition (ASA) Model

Schneider (1995) mentioned that within organizational context an individual is important and equally responsible for the structure, processes and culture of the organization. ASA model explained that attributes of people are the fundamental aspects of organizational behavior. There are three core assumptions of this framework; attraction, selection and attrition. Individuals are differentially attracted towards careers on the basis of their interests and personality traits (Holland, 1985). Individuals' are in search of those working environment that suits their personality and would be able to acquire their outcomes by picking a specific organization. On the other hand, firms hire those employees who possess knowledge, skills and abilities like their existing workers. In that way, mostly individuals' who share common personal attributes are selected in an organization though they may differ in competencies. While attrition process refer to the idea that when people do not fit within an organization they tend to leave it.

1.7 Conceptual Framework

Conceptual framework of the current study is designed on the basis of above mentioned theories. The Attraction selection attrition framework states that there is diversity exists in an

individual's personality within the organization, but only those individuals remain employed in the organization, whose personality features is similar to that working condition. In terms of the present study, when individuals select organizations according to their personality types, then they show positive career commitment and attain career progress and goals by staying in organization over a longer period of time. However, individuals' whose knowledge, interest and skills do not match with the requirement of the organization are more likely to leave due to unfit match. Similarly, foundation of current study revolves around the main theme of personality job fit theory. According to person-job fit theory, personality traits play important role in determining how an individual selects a specific job or organization. When individuals select career or organization according to personality traits, then they are more likely to stay committed within an organization.

On the basis of above discussion, employee career satisfaction is dependent upon the career commitment and right career choice which matches with personality. Within this conceptual framework personality traits are taken as the independent variable which is known as predictor variable. Career commitment is the mediating variable and career satisfaction is the outcome variable as shown in Figure 1.

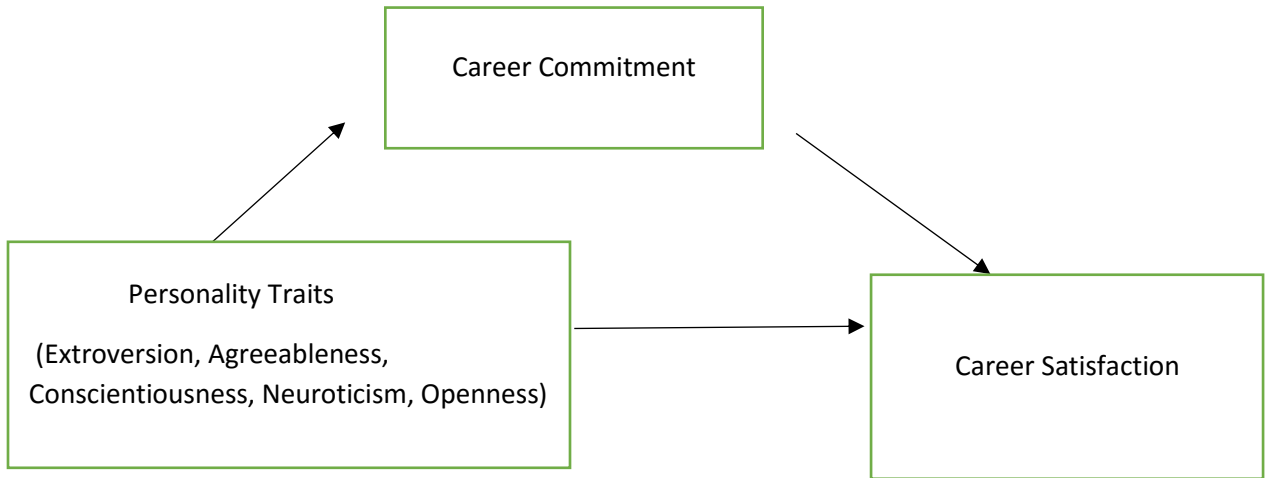


Figure 1. Conceptual Mediation Model of current study

Methodology**2.1 Objectives**

Objectives of study are given below:

1. To explore the relationship between personality traits (openness to experience, conscientiousness, extroversion, agreeableness and neuroticism), career satisfaction and career commitment among medical doctors.
2. To study the mediating role of career commitment between personality traits (openness to experience, conscientiousness, extroversion, agreeableness and neuroticism) and career satisfaction of medical doctors.
3. To examine the role of demographic variables (gender, age, marital status, years in practice, weekly working hours, monthly income and work setting) in relation to career satisfaction of medical doctors.

2.2 Hypotheses

Following are the alternative hypotheses of current study:

1. Openness to experience, conscientiousness, extroversion and agreeableness will be positively correlated with career satisfaction of medical doctors.
2. Neuroticism will be negatively correlated with career satisfaction of medical doctors.
3. Openness to experience, conscientiousness, extroversion and agreeableness will be positively correlated with career commitment of medical doctors.
4. Neuroticism will be negatively correlated with career commitment of medical doctors.
5. There will be positive relationship between career satisfaction and career commitment among medical doctors.
6. Career commitment will mediate the relationship between personality traits (extroversion, agreeableness, conscientiousness, neuroticism and openness) and career satisfaction of medical doctors.
7. Career satisfaction will be predicted by demographic variables (monthly income, weekly working hours, gender, primary work setting, years in practice, marital status and age).

2.3 Sample & Sampling strategy

Convenient non-probability sampling technique has been used in this study. Sample has been taken from government and private hospitals of Islamabad and it included medical doctors. Sample size was calculated through G-power as 311. Sample comprised of medical doctors (N=300), both male (n=165) and female (n=135) respondents.

Inclusion criteria.

- Doctors working in government or private hospital of Islamabad
- Both male and female doctors were included in the study
- Doctors having the degree of FCPS

2.4 Research Design

It was correlational study designed to examine the correlation between career satisfaction and personality traits of medical doctors working in government and private hospitals. Research data was collected by using the survey technique.

2.5 Operational Definitions of the Variables

2.5.1. Personality Traits

Personality is comprised of traits, characteristics and quirks that set you apart from others (Ackerman, 2017). In current study, personality traits were calculated which were openness to experience, conscientiousness, extroversion, agreeableness and neuroticism through the sub-scales of big five inventory. Openness refers to individual's ability to be in search of new experiences. Respondents who score high on this factor are imaginative and appreciate arts and those having low score in this category hardly adopt new things and prefer rigid schedule. Conscientiousness is related to persistence, the ability to follow through on goals and objectives and show punctuality. Conscientiousness was measured by the respondents resulting scores on conscientiousness sub-scale of BFI. Respondents who score high on this sub-scale are well-organized, hardworking and punctual.

Extroversion is an ability to relate with others. Extroverts are talkative and feel comfortable in group setting. Individuals' possessing high score on this trait are optimistic and perform their duties better within group while on the opposite end are introverts who work better alone. Agreeableness is related to person's capacity for empathy. Those who score high on this trait are understanding in nature and feel the needs of others while low score respondents like to debate and try to impose their views on others. Neuroticism is the last sub-scale of big five inventory and

refers to inability to deal with difficult situations in life. Respondents who score high on this trait don't show consistent behavior and behave unpredictably. Results of big five inventory in each category are placing the respondents in a high, medium or low level for each trait.

2.5.2. Career Satisfaction

Career satisfaction has substantial and optimistic impact on the output of an employee. In present study, career satisfaction was determined by the respondents resulting scores on career satisfaction scale. High scores on this scale show higher level of career satisfaction while low scores on this scale show lower level of career satisfaction.

2.5.3. Career Commitment

It is one of the significant sources of occupational meaning and continuity (Colarelli & Bishop, 1990). According to Kelsey (2015), career commitment refers to identification and involvement in one's occupation. In current study, career commitment was determined by the respondents resulting scores on career commitment scale. High scores on this scale show higher level of career commitment and low scores on this scale show lower level of career commitment.

2.6 Research Instruments

2.6.1. Demographic Sheet

Participants' basic information was gathered by using demographic sheet that included age, gender, marital status, field of specialization, years in practice, monthly income, weekly working hours and primary work setting.

2.6.2. Big Five Inventory (2008)

In the current study, personality traits among medical doctors were measured by Big Five Inventory (BFI) developed by John, Naumann and Soto (2008). This tool has been used in many latest studies (Celik & Oral, 2016; Kisten & Kluyts, 2018) and has sound alpha reliability. BFI is self-report inventory designed to measure the five personality dimensions; openness to experience, conscientiousness, extroversion, agreeableness and neuroticism. It is quite brief multidimensional personality inventory (44 items total) and consists of short phrases with relatively accessible vocabulary. It is based upon five point rating scale: disagree strongly (1), disagree a little (2), neither agree nor disagree(3), agree a little (4) and agree strongly (5). In BFI 16 out of 44 items are reverse-coded. BFI subscales; openness to experience is comprised of 5, 10, 15, 20, 25, 30, 35R, 40, 41R and 44 items, conscientiousness 3, 8R, 13, 18R, 23R, 28, 33, 38 and 43R items,

extroversion 1, 6R 11, 16, 21R, 26, 31R and 36 items, agreeableness 2R, 7, 12R, 17, 22, 27R, 32, 37R and 42 items and neuroticism subscale is comprised of 4, 9R, 14, 19, 24R, 29, 34R and 39 items. As the population of study was educated (medical doctors), therefore the tool was administered in English language.

2.6.3 Career Satisfaction Scale (1990)

Career Satisfaction among medical doctors was measured by Career Satisfaction scale (CSS), developed by Greenhaus, Parasuraman and Wormley in 1990. It has 5 items and scoring is based upon five point rating scale: strongly disagree (1), disagree to some extent (2), uncertain (3), agree to some extent (4) and strongly agree (5). It is used to determine five parameters of career satisfaction: achieved success, overall career goal, goal for advancement, goal for income and goal for development of new skill. The reliability coefficient of CSS scale is 0.88 which is consistent with Nunnally's (1967) who suggested reliability estimates of 0.70 (minimum) as the cut-off value. In current study, scale was administered in English language.

2.6.4. Career Commitment Scale-Long Form (1990)

Career commitment was determined through career commitment scale-long form established by Colarelli and Bishop in 1990 among doctors. It has 17-item and scoring is based upon seven-point rating scale: strongly disagree (1), disagree (2), somewhat disagree (3), neither agree nor disagree (4), somewhat agree (5), agree (6) and strongly agree (7). In career commitment scale 6 out of 17 items are reverse coded. Item no 4, 9,11,12,13 and 15 are reverse coded. The reliability coefficient of career commitment scale-long form is 0.94 which is good evidence of convergent validity.

2.6.5. Validity of Research Instruments

The scales used in the present study were firstly displayed to four specialists to check the items cultural relevance. Feedback was provided by the experts and their suggestions were incorporated in the study. Cognitive interviewing was done upon suggestion of one expert prior to pilot study.

2.6.6. Cognitive Interviewing

Cognitive interviewing was done for the Big Five Inventory, career satisfaction scale and career commitment scale-long form. Main objective of this step was to check/find out if there are any statements that are difficult to understand. Scales were pretested on 10 doctors and they were

debriefed initially. They were asked to highlight if they found any word difficult to understand or unacceptable. Participants reported that the language of questionnaire were easy to understand/comprehend.

2.7 Procedure

Pilot testing

Pilot testing was done in order to check out the research instruments (Big Five Inventory, Career Satisfaction scale & Career Commitment scale-Long Form) feasibility, time, cost and statistical variability. Pilot testing helps in getting the picture of whether the research follows the research protocols or research methods or instruments. Pilot data was collected from 30 doctors by using the convenience non-probability sampling technique. It was found that questionnaires were easy to understand for them and 40-50 minutes would be required for administration. The calculated Cronbach's alpha values of extroversion (.82), neuroticism (.89), agreeableness (.89), conscientiousness (.81), openness (.79), CSS (.82) and CCS-LF (.81) indicated that the scales were reliable to use.

Main Study

For the intention of data collection, government and private hospitals of Islamabad were approached. Approval was taken by the researcher from the head of the hospitals in order to collect data from the doctors. Once the process of permission was accomplished, the participants were approached and briefed about the purpose of the research and informed written consent was taken from each of the respondents (Appendix A). Questionnaires were then given to the participants and they were assured that the confidentiality of data will surely be maintained. The researcher provided withdrawal opportunity to respondents from the study at any given time according to their free will. Further they were briefed about how to respond on each scale as well as on demographic form. Respondents completed all questionnaires in the supervision of researcher and took 40-50 minutes to complete three questionnaires and demographic form. After the data collection process, the next phase was to analyze data on SPSS in order to get results followed by discussion and recommendations.

2.8 Ethical Considerations

Authors' Permission for Tool Usage

In compliance with ethical guidelines for research, permission for the usage of research instruments was obtained via email from Stephen Colarelli and Jeffrey Greenhaus. Emails of correspondence with each author are attached in appendix B.

Participants' Informed Consent

An informed written consent was signed from the participants after briefly describing the importance and purpose of research. Purpose of designing consent form was that it automatically directed those who assented to participate in the study to the questionnaires and ended the survey for those who declined. A sample of the informed consent form is attached in appendix A.

2.9 Statistical Analysis of the Study

Data was analyzed by using the Statistical Package for Social Sciences (SPSS) version 20. While seeing the nature of data, following descriptive and inferential techniques were employed:

Data Cleaning: Initially data was cross-checked by the investigator for data cleaning purpose through descriptive statistics. Missing values and outliers were identified.

Assumptions of normality: To examine the distribution of participants' scores in the study, histograms and normality curve of the data were examined. Moreover, the assumption of normality was also checked through the values of skewness and kurtosis.

Reliability of the measures: To determine the internal consistency of the items of scales and subscales, which were used in the study, alpha co-efficient was determined.

Data descriptive: To report characteristics of the study participants, mean, standard deviations, ranges, frequency and percentage of demographics and study variables were reported.

Inferential Statistics:

Pearson Product Moment Correlation to see the relationship between big five personality traits, career satisfaction and career commitment among medical doctors.

Mediation Analysis to determine the mediating role of career commitment between big five personality traits and career satisfaction in medical doctors.

Hierarchical regression analysis to observe the predictive role of demographic characteristics in career satisfaction of medical doctors

CHAPTER III

Results

This chapter describes detailed review of data analysis, interpretation and results to evaluate the relationship between personality traits and career satisfaction of medical doctors through analyzing the role of career commitment as mediator. Study results are divided according to tables:

1. Table 1 shows the frequencies and percentage of demographic characteristics of participants
2. Table 2 shows the descriptive statistics and Cronbach's alpha of all scales used in study
3. Table 3 shows the correlation matrix of all variables of the main study
4. Table 4, 5, 6, 7 and 8 shows summary of mediation analysis of career commitment on career satisfaction through personality traits; extroversion, agreeableness, conscientiousness, neuroticism and openness
5. Table 9 shows the predictive role of demographic variables upon career satisfaction of medical doctors

3.1 Frequency Statistics

Table 1

Demographics	F	%
Gender		
Male	165	55.0
Female	135	45.0
Age Range		
21-30	5	1.7
31-40	234	78.0
41-50	49	16.3
older than 50	12	4.0
Marital Status		
Married	160	53.3
Unmarried	140	46.7
Years in Practice		
0-5	200	66.7
6-10	33	11.0
11-15	32	10.7
more than 15	35	11.7
Work setting		
only hospital based	187	62.3
hospital & private clinic	77	25.7
hospital & teaching	36	12.0

Monthly Income		
70000-14999	222	74.0
150000-249999	54	18.0
250000-349999	12	4.0
above 350000	12	4.0

Weekly working Hours		
31-60	144	48.0
61-90	125	41.7
91-110	25	8.3
111-140	6	2.0

Specialization		
Cardiology	22	7.3
Dental	13	4.3
Dermatology	59	19.7
ENT	8	2.7
Gynae	14	4.7
Medicine	55	18.3
Neurology	6	2.0
Neurosurgery	51	17.0
Orthopedic Surgery	4	1.3
Orthopedics	5	1.7
Pediatrics	18	6.0
Pathology	2	0.7

Surgery	30	10.0
Urology	13	4.3

Frequencies and percentage of demographic characteristics of participants (N=300)

Note. f = Frequency of the participants, % = percentage

Table 1 shows the frequency and percentage of demographic characteristics of participants related to their field of specialization, monthly income, work setting, weekly working hours, number of years in practice, age range, gender and marital status used in present study. 55% of the doctors who participated in the current study are male and 45% are female. Most of the doctors (78%) who participated in the current study are in the age range of 31-40 years and 62.3% are working in hospital setting only. It also shows that 66.7% of the doctors who participated in study are having the experience of 0-5 years. Additionally, 19.7% of the doctors belong to dermatology field, 18.3% are from medicine and 17% are from neurosurgery field.

3.2 Descriptive Statistics and Alpha Reliabilities of scales

Table 2

Descriptive Statistics and Alpha Reliabilities Coefficient of the scores for all the scales (N=300)

Scales	No of items	<i>M</i>	<i>SD</i>	Skewness		Kurtosis		α
		Statistic	Statistic	Statistics	Std. Error	Statistic	Std. Error	
Openness	10	4.0	.59	-.98	.14	2.93	.28	.76
Conscientiousness	9	3.44	1.07	-.34	.14	-1.1	.28	.92
Extroversion	8	3.25	1.05	.10	.14	-1.0	.28	.89
Agreeableness	9	3.77	.88	-.60	.14	-.23	.28	.84
Neuroticism	8	3.56	1.11	-.52	.14	-.82	.28	.91
CSS	5	12	5.28	.71	.14	-0.36	.28	.91
CCSLF	17	89	14.73	-.14	.14	-.36	.28	.82

Note. M=Median, SD=Standard Deviation

Table 2 displays the descriptive statistics and alpha coefficient for the scales of Big Five Inventory five sub-scales, Career Satisfaction scale (CSS) and Career Commitment Scale-Long Form (CCSLF). The alpha values show that all the scales and sub-scales have adequate reliability ranges i.e. $\alpha > .7$ as values between 0.7 to 0.8 are in acceptable range of consistency (Field, 2016). BFI subscales have adequate internal consistency as alpha coefficient values of its subscales range from .76 to .92 respectively. Reliability of career satisfaction scale was found to be high ($\alpha=.908$),

and career commitment scale has good internal consistency ($\alpha = .819$). The normality data curve was checked through skewness and kurtosis, ranging from -2 to 2 (Wallnau & Gravetter, 2014). The skewness of the present sample on the measures used lies in the normal range of absolute skewness < 2 (George & Mallery, 2010; West et al., 1996 as cited in Kim, 2013) which indicated that the obtained data is normally distributed. Similarly, the normality of data is also reflected in the kurtosis values on all measures used i-e, < 7 (West et al., 1996 as cited in Kim, 2013). The data was found to be accurate for further analysis.

3.3 Correlations Matrix

Pearson Product Moment Correlation was carried out to find out the strength of relationship between variables (career satisfaction, career commitment, personality traits that are extroversion, agreeableness, conscientiousness, neuroticism and openness) before carrying out the prediction analysis.

Table 3

Pearson's Product Moment Correlation of Career Satisfaction, Career Commitment and subscales of Big Five Inventory (N=300)

Variables	1	2	3	4	5	6	7
1 Career Satisfaction	1	.38**	.35**	.36**	.33**	-.51**	-.09
2 Career Commitment		1	.35**	.30**	.31**	-.42**	.21**
3 Extroversion			1	.19**	.68**	-.43**	.05
4 Agreeableness				1	.31**	-.32**	.11
5 Conscientiousness					1	-.43**	.11*
6 Neuroticism						1	.08
7 Openness							1

** Correlation is significant at the 0.01 level (2-tailed), *Correlation is significant at the 0.05 level (2-tailed)

Table 3 shows the Pearson product –correlation coefficient among the variables of current study. The analysis reveals that there is weak, positive, statistically significant relationship between career satisfaction and career commitment, $r=0.38$, $p<0.00$ which infers that increase in the level of satisfaction is associated with increase in career commitment of doctors. This supports the hypothesis regarding positive relationship between career satisfaction and career commitment of doctors. There is weak, positive, statistically significant relationship between career satisfaction

and extroversion, $r=0.35$, $p<0.00$ which means that increase in career satisfaction is positively associated to extroversion. Analysis also indicates that there is weak, positive, statistically significant relationship between career satisfaction and agreeableness, $r=0.36$, $p<0.00$ which infers that there is positive association between career satisfaction and agreeableness. There is weak, positive, statistically significant relationship between career satisfaction and conscientiousness, $r=0.33$, $p<0.00$ which indicates that career satisfaction and conscientiousness are positively associated with each other.

Analysis also indicates that there is moderate, negative, statistically significant relationship between career satisfaction and neuroticism, $r=-0.51$, $p<0.00$ depicting that if there is increase in neuroticism then there is decline in the level of career satisfaction. This supports the hypothesis regarding negative relationship between neuroticism and career satisfaction of doctors. There is very weak, negative, insignificant relationship between career satisfaction and openness, $r=-0.10$, $p>0.00$ which means that there is no association between career satisfaction and openness. Hypothesis was not supported regarding positive association between openness and career satisfaction of doctors.

Furthermore, there is weak, positive, statistically significant relationship between career commitment and extroversion, $r=0.35$, $p<0.00$ which depicts that increase in extroversion is positively associated with career commitment of doctors. Analysis reveals that there is weak, positive, statistically significant relationship between career commitment and agreeableness, $r=0.30$, $p<0.00$ which means that career commitment and agreeableness are positively correlated with each other. There is weak, positive, statistically significant relationship between career commitment and conscientiousness, $r=0.33$, $p<0.00$ which infers that career commitment and conscientiousness are positively correlated with each other. Analysis also indicates that there is moderate, negative, statistically significant relationship between career commitment and neuroticism, $r=-0.42$, $p<0.00$ depicting that career commitment and neuroticism are negatively correlated with each other. If there is increase in level of neuroticism, then there is decline in career commitment of doctors. And analysis specifies that there is weak, positive, significant relationship between career commitment and openness, $r=0.21$, $p<0.00$ which means that career commitment and openness are directly associated with each other. This supports the hypothesis regarding positive association between openness and career commitment of doctors.

3.4 Mediation Analysis

PROCESS macro (Hayes, 2018) was used to investigate the mediating role of career commitment on the relationship of personality traits and career satisfaction. Model 4 was used to assess five mediated models. Detailed description of these models is given below.

Table 4

Indirect effect of openness on career satisfaction through career commitment (N=300)

Variables	Career Satisfaction			
	Model 1	Model 2	95% CI	
	β	β	<i>LL</i>	<i>UL</i>
Constant	15.84***	5.50	1.07	9.93
Openness	-.87	-1.64***	-2.58	-.71
Career Commitment		.15***	.11	.19
R ²	.01	.18		
F	2.90	32.27***		

Note. β = Standardized Coefficient.

* $p < .05$, ** $p < .01$, *** $p < .001$

Career commitment was examined as a mediator between openness and career satisfaction. Results indicated that the total effect of openness on career satisfaction is non-significant ($\beta = -.87$, $p = .09$) as described in model 1. While model 2 explained that the direct effect of openness on career satisfaction is also significant after controlling the effect of career commitment ($\beta = -1.64$, 95% CI = -2.58, -.71, $p < .001$). Furthermore, results indicate that career commitment significantly mediated the relationship of openness and career satisfaction ($\beta = .77$, 95% CI = .28, 1.22, $p < .001$)

and explained 18% of the variance in the domain of career satisfaction. The mediated model is presented in the figure given below:

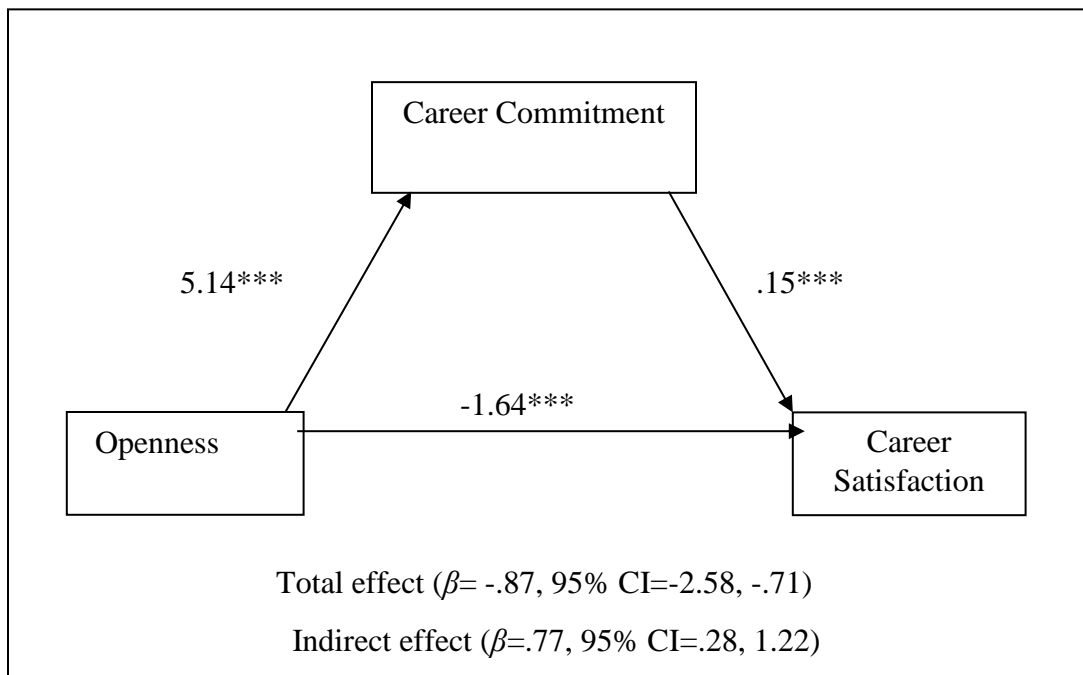


Figure 2. Indirect effect of openness on career satisfaction through career commitment

Note. These are standardized coefficient

* $p < .05$, ** $p < .01$, *** $p < .001$

There was a significant indirect effect of openness on career satisfaction through career commitment, $\beta = .77$, 95% CI [.28, 1.22]. Figure 2 illustrates that career commitment interacts with openness to predict career satisfaction. Hence, the hypothesis that career commitment acts as mediator between openness and career satisfaction has been supported.

Table 5*Indirect effect of conscientiousness on career satisfaction through career commitment (N=300)*

Variables	Career Satisfaction			
	Model 1	Model 2	95% CI	
	β	β	<i>LL</i>	<i>UL</i>
Constant	7.12***	-1.15	-4.52	2.21
Conscientiousness	1.62***	1.16***	.63	1.69
Career Commitment		.11***	.07	.15
R ²	.11	.20		
F	36.87***	36.32***		

Note. β = Standardized Coefficient.

* $p < .05$, ** $p < .01$, *** $p < .001$

Career commitment was examined as a mediator between conscientiousness and career satisfaction. Results indicated that the total effect of conscientiousness on career satisfaction is significant ($\beta=1.62, p < .001$) as described in model 1. While model 2 explained that the direct effect of conscientiousness on career satisfaction was also significant after controlling the effect of career commitment ($\beta=1.16, 95\% \text{ CI}=.63, 1.69, p < .001$). Furthermore, results indicate that career commitment significantly mediated the relationship of conscientiousness and career satisfaction ($\beta = .46, 95\% \text{ CI}=.23, .70, p < .001$) and explained 20% of the variance in the domain of career satisfaction. The mediated model is presented in the figure given below:

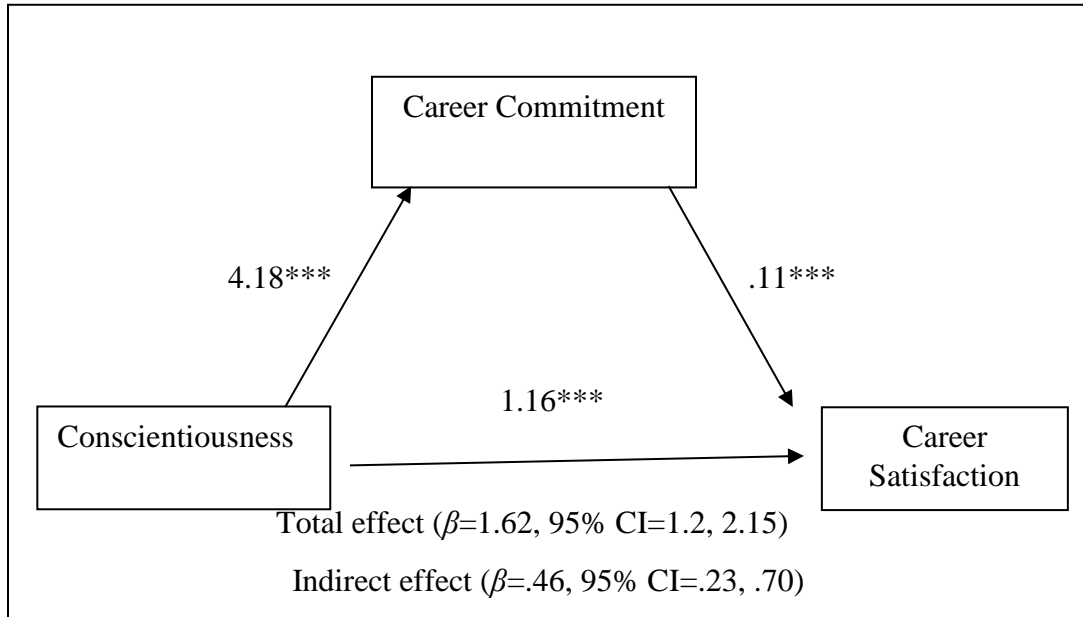


Figure 3. Indirect effect of conscientiousness on career satisfaction through career commitment

Note. These are standardized coefficient
 * $p < .05$, ** $p < .01$, *** $p < .001$

There was a significant indirect effect of conscientiousness on career satisfaction through career commitment, $\beta=.46$, 95% CI [.23, .70]. Figure 3 illustrates that career commitment interacts with conscientiousness to predict career satisfaction. Hence, the hypothesis that career commitment acts as mediator between conscientiousness and career satisfaction has been supported.

Table 6*Indirect effect of extroversion on career satisfaction through career commitment (N=300)*

Career Satisfaction				
Variables	Model 1	Model 2	95% CI	
	β	β	<i>LL</i>	<i>UL</i>
Constant	6.78***	-.91	-4.24	2.42
Extroversion	1.76***	1.24***	.69	1.78
Career Commitment		.10***	.07	.14
R ²	.12	.19		
F	41.84***	36.98***		

Note. β = Standardized Coefficient.* $p < .05$, ** $p < .01$, *** $p < .001$

Career commitment was examined as a mediator between extroversion and career satisfaction. Results indicated that the total effect of extroversion on career satisfaction is significant ($\beta=1.76, p<.001$) as described in model 1. While model 2 explained that the direct effect of extroversion on career satisfaction was also significant after controlling the effect of career commitment ($\beta=1.24, 95\% \text{ CI}=.69, 1.78$). Furthermore, results indicate that career commitment significantly mediated the relationship of extroversion and career satisfaction ($\beta = 0.52, 95\% \text{ CI}=.29, .80$) and explained 19% of the variance in the domain of career satisfaction. The mediated model is presented in the figure given below:

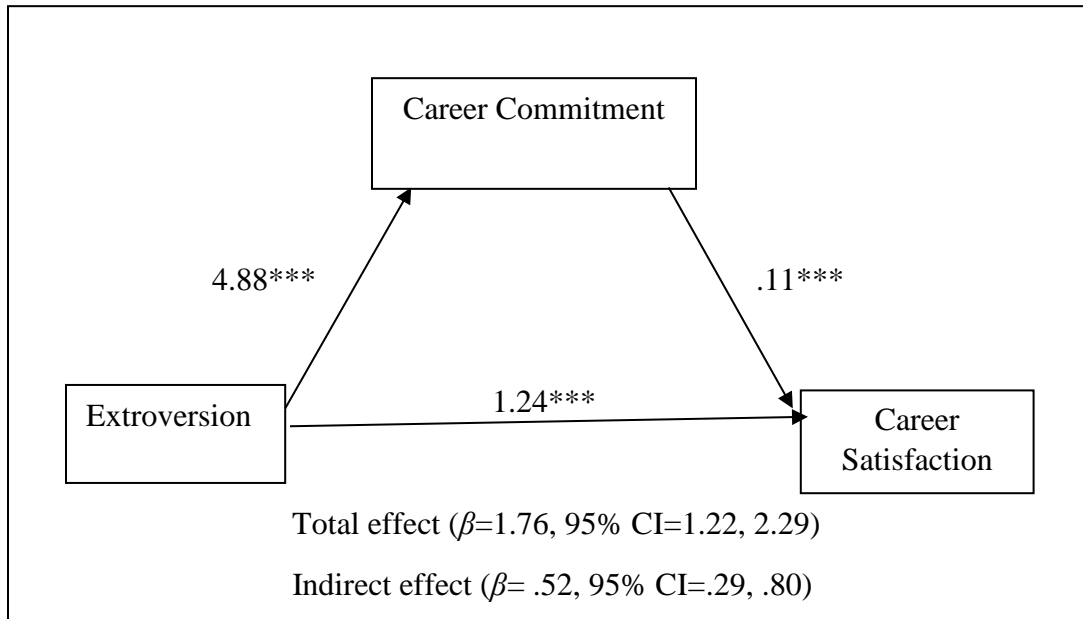


Figure 4. Indirect effect of extroversion on career satisfaction through career commitment

Note. These are standardized coefficient

* $p < .05$, ** $p < .01$, *** $p < .001$

There was a significant indirect effect of extroversion on career satisfaction through career commitment, $\beta = 0.52$, 95% CI [.29, .80]. Figure 4 illustrates that career commitment interacts with extroversion to predict career satisfaction. Hence, the hypothesis that career commitment acts as mediator between extroversion and career satisfaction has been supported.

Table 7*Indirect effect of agreeableness on career satisfaction through career commitment (N=300)*

Career Satisfaction				
Variables	Model 1	Model 2	95% CI	
	β	β	<i>LL</i>	<i>UL</i>
Constant	4.74***	-2.87	-6.39	.65
Agreeableness	2.14***	1.59***	.95	2.23
Career Commitment		.11***	.07	.15
R ²	.13	.21		
F	43.14***	39.32***		

Note. β = Standardized Coefficient.* $p < .05$, ** $p < .01$, *** $p < .001$

Career commitment was examined as a mediator between agreeableness and career satisfaction. Results indicated that the total effect of agreeableness on career satisfaction is significant ($\beta=2.14, p<.001$) as described in model 1. While model 2 explained that the direct effect of agreeableness on career satisfaction was also significant after controlling the effect of career commitment ($\beta=1.59, 95\% \text{ CI}=.95, 2.23, p<.001$). Furthermore, results indicate that career commitment significantly mediated the relationship of agreeableness and career satisfaction ($\beta = .55, 95\% \text{ CI}=.27, .87, p<.001$) and explained 21% of the variance in the domain of career satisfaction. The mediated model is presented in the figure given below:

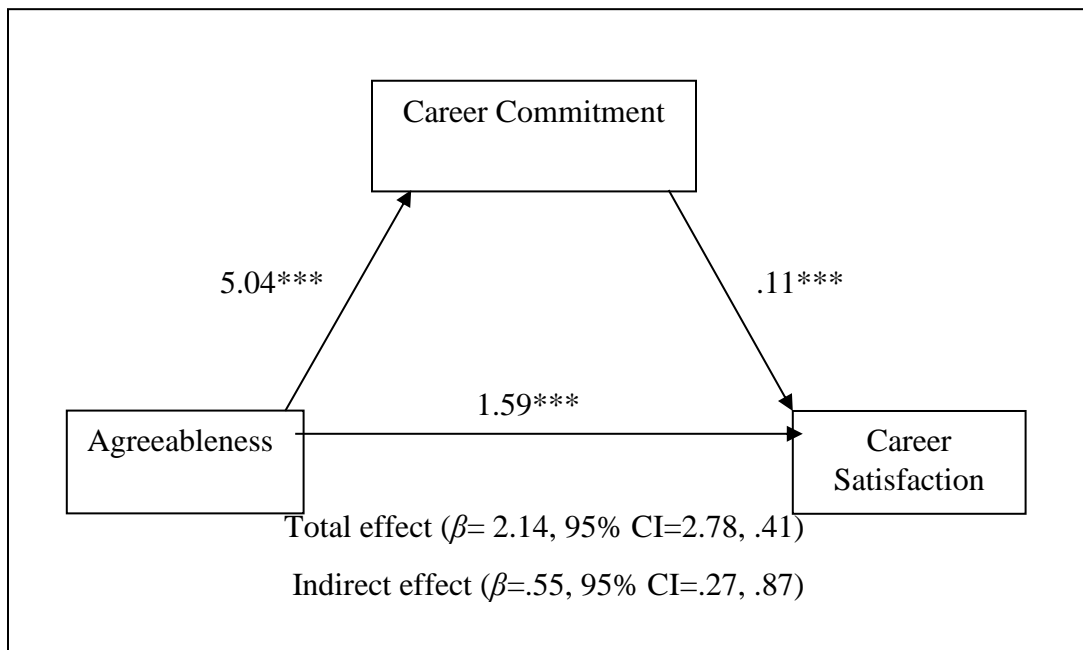


Figure 5. Indirect effect of agreeableness on career satisfaction through career commitment

Note. These are standardized coefficient
 * $p < .05$, ** $p < .01$, *** $p < .001$

There was a significant indirect effect of agreeableness on career satisfaction through career commitment, $\beta = .55$, 95% CI [.27, .87]. Figure 5 illustrates that career commitment interacts with agreeableness to predict career satisfaction. Hence, the hypothesis that career commitment acts as mediator between agreeableness and career satisfaction has been supported.

Table 8*Indirect effect of neuroticism on career satisfaction through career commitment (N=300)*

Career Satisfaction				
Variables	Model 1	Model 2	95% CI	
	β	β	<i>LL</i>	<i>UL</i>
Constant	20.36***	12.54***	8.21	16.87
Neuroticism	-2.42***	-2.02***	-2.51	-1.51
Career Commitment		.07***	.04	.11
R ²	.26	.29		
F	104.31***	61.82***		

Note. β = Standardized Coefficient.* $p < .05$, ** $p < .01$, *** $p < .001$

Career commitment was examined as a mediator between neuroticism and career satisfaction. Results indicated that the total effect of neuroticism on career satisfaction is significant ($\beta = -2.42$, $p < .001$) as described in model 1. While model 2 explained that the direct effect of neuroticism on career satisfaction was also significant after controlling the effect of career commitment ($\beta = -2.02$, 95% CI = -2.51, -1.51, $p < .001$). Furthermore, result indicates that career commitment significantly mediated the relationship of neuroticism and career satisfaction ($\beta = -.41$, 95% CI = -.65, -.18, $p < .001$) and explained 29% of the variance in the domain of career satisfaction. The mediated model is presented in the figure given below:

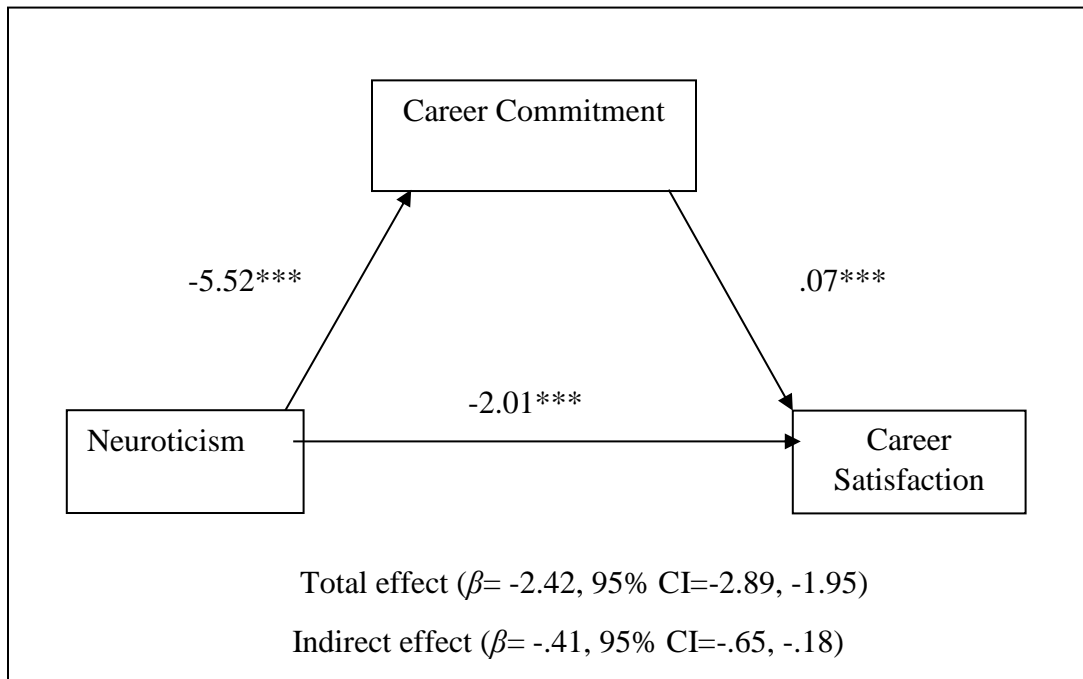


Figure 6. Indirect effect of neuroticism on career satisfaction through career commitment

Note. These are standardized coefficient

* $p < .05$, ** $p < .01$, *** $p < .001$

There was a significant indirect effect of neuroticism on career satisfaction through career commitment, $\beta = -.405$, 95% CI [-.65, -.18]. Figure 6 illustrates that career commitment interacts with neuroticism to predict career satisfaction. Hence, the hypothesis that career commitment acts as mediator between neuroticism and career satisfaction has been supported.

3.5 Role of Demographic Variables in predicting Career Satisfaction

Hierarchical regression analysis was run to study the predictive role of demographic variables upon career satisfaction of medical doctors.

Table 9

Summary of Hierarchical Regression Analysis for demographic variables predicting career satisfaction in medical doctors (N=300)

Predictor variable	<i>R</i>	<i>R</i> ²	<i>B</i>	<i>SE B</i>	β	ΔR^2	α
<i>Step 1</i>	.38	.15				.13	.000
Monthly income			-2.6	.58	-.37***		
Weekly working Hours			.04	.01	.14***		
Gender			-.1	.6	-.01		
Work setting			.21	.47	.03		
Years in Practice			-.32	.38	-.1		
<i>Step 2</i>	.39	.16				.14	.000
Monthly income			-2.6	.58	-.36***		
Weekly working hours			.03	.01	.13***		
Gender			-.20	.56	-0.19		
Work setting			.24	.47	.03		
Years in Practice			-1.7	.40	-.03		
Marital status			-.11	.1	-.07		
Age			1.0	.65	-.9		

Note. B = unstandardized coefficient, β = standardized beta coefficient, α = significance level of model, CI= confidence interval

*** $p < 0.01$, ** $p < .05$

Table 9 reveals the results for hierarchical regression analysis with career satisfaction as dependent variable and six predictors in two blocks. In first step of hierarchical regression, 5 predictors were entered: monthly income, weekly working hours, gender, work setting and years in practice. This model was statistically significant $F(5, 294) = 10.13; p < .01$ and explained 15% variance in career satisfaction. Monthly income and weekly working hours made a significant contribution to the model. After entry of marital status and age at step 2, total variance explained by the model as a whole was 16% [$F(7, 292) = 7.8, p = .01$]. Marital status and age does not explain much increase as percentage of variability went up from 15% to 16% only. In the final adjusted model, two out of seven predictor variables are statistically significant with monthly income recording a higher beta value ($\beta = -.37, p < .01$) than the weekly working hours ($\beta = .14, p < .01$).

Hierarchical regression analysis explains that monthly income and weekly working hours are two major predictors of career satisfaction among medical doctors.

Discussion

Purpose of study was to find out the correlation amongst traits of personality, career satisfaction and career commitment of medical doctors working in government and private hospitals of Islamabad, while secondary purpose was to study the mediating role of career commitment in predicting the correlation among career satisfaction and personality traits. Three research instruments; Big Five Inventory, Career Commitment scale-Long Form and Career Satisfaction Scale were administered to meet the study objectives. As explained in chapter IV, responses of 300 medical doctors were gathered. These respondents were employed in government and private hospitals of Islamabad. The findings of current study suggested that positive association among openness, conscientiousness, extroversion, agreeableness and career satisfaction of medical doctors. While there is negative correlation among neuroticism and career satisfaction of medical doctors. Career commitment is mediating the association among personality traits and career satisfaction of medical doctors.

Discussion on study demographics has revealed that there is almost equal participation of male and female doctors in health industry so data were collected from both gender (male=55% and female=45%). Other demographics such as field of specialization, monthly income, work setting, age and number of years in practice were also noted. Most of the respondents who participated in the study had experience of 5 years in practice after completion of FCPS degree while others had 10, 15 and more than 15 years of working in hospitals. Doctors from different departments such as cardiology (7.4%), dental (4.3%), dermatology (19.7%), ENT (2.7%), gynae (4.7%), medicine (18.3%), neurosurgery (17%), orthopedics (1.7%), pediatrics (6%), pathology (0.7%), surgery (10%) and urology (4.3%) were included in the current study. Among these doctors, 62.3% reported that they were working in hospital setting only while 25.7% were also busy in their private clinic along hospital job. And 12% doctors were doing teaching. Hence demographic analysis displays that there is a great diversity in the attributes of respondents and sample is considering the maximum diversified attributes of employees.

First five hypothesis of current study was based on the association among traits of personality, career satisfaction and career commitment among medical doctors. Findings have shown that personality traits (conscientiousness extroversion and agreeableness) are positively correlated with career satisfaction of doctors. Extroverts are more likely to hold and be satisfied with jobs rich in social interaction (Huang et.al, 2015). In the profession of medicine, doctors are interacting with new clients every day so individuals possessing extroversion traits are more satisfied in hospital culture as compared to introverts. The relationship between extroversion and performance constructs is consistent with meta-analysis (Allameh, Ghafari, & Davoodi, 2012). Similarly, individuals possessing agreeableness traits are mostly cooperative and have kind feelings about others and they perform better in their task (Abdullah, 2013). Being cooperative and having kind feelings towards patients is helpful for doctors especially during rapport building. Conscientiousness trait is considered as the most reliable trait of personality. As far as the association among conscientiousness and career/job performance is concerned, positive relationship of conscientiousness and career satisfaction is supported through correlation matrix. Probably, this might be due to conscientiousness trait that is directly linked with performance related attributes like sense of responsibility, organized and disciplined personality. And these findings are reliable with the study of Yildirim, Gulmez and Yildirim (2016) which state that noteworthy relationship occurs among job satisfaction and conscientiousness.

There is negative relationship between neuroticism and career satisfaction of doctors. It explained that, if there is increase in level of neuroticism, then there is decline in satisfaction level of doctors. Research stated that neuroticism trait is one of the strongest and consistent negative correlate of job satisfaction (Kisten & Kluyts, 2018). There was negative relationship found between neuroticism personality and career satisfaction. This might be because an employee having high level of stress is unable to create understating and emotional attachment with organization. Similarly, a neurotic individual is unable to focus upon career at a time, so negative relationship is found between neuroticism and career satisfaction. Next hypothesis of the current study is related to positive relationship between openness to experience and career satisfaction of medical doctors. But findings of this study did not support the hypothesis and showed insignificant relationship between the openness to experience and career satisfaction. Kappagoda (2013) explained that there is insignificant relationship between openness to experience and career satisfaction.

There is positive relationship between extroversion, agreeableness, conscientiousness traits and career commitment among medical doctors. Talking about the relationship between extroversion and career commitment, results have shown that there is positive relationship between extroversion and career commitment. So extroversion significantly predicts career commitment. By seeing the literature on this relationship, there is consent by the researchers upon this positive relationship that is present between extroversion and commitment level of employee (Hawass, 2012; Kumar & Bakhshi, 2010; Spagnoli & Caetano, 2012). Study results supported the hypothesis which indicated that there will be positive relationship between agreeableness and career commitment. This is because employees possessing agreeableness traits are pleasantly linked to communication with other people which in turn is directly associated with affective intimacy (Syed, Saeed & Furrugh, 2015). Such affection can increase employee social identity in the workplace and provide supportive environment. Results have shown the positive relationship between conscientiousness and career commitment of doctors. Probably, this significant result is because an employee who possesses highly responsible, disciplined and careful personality can easily impress the surrounding workforce and a natural bond is created with the organization and its environment that makes the individual emotionally attached to that organization. So the high level of commitment within an organization can be an important antecedent of conscientious individuals and these findings are consistent with the results of different studies (Hawass, 2012; Chandel, Muscat; Kumar & Bakhshi, 2010; Sharma & Bansal, 2011).

Negative significant relationship exists between neuroticism and career commitment among doctors and correlation analysis supported the hypothesis. It means that if an employee possesses highly neurotic traits, then it is difficult for an employee to show high commitment in the career of medicine. Individuals possessing high neurotic traits are low in level of commitment within an organization (Abdullah, 2013). Hospital sector neurotic employees with high stress and nervousness prefer to quit the job instead of staying committed with organization. On the other hand, there is direct relationship between openness to experience and career commitment among doctors. Openness to experience is considered to be significant predictors of job performance constructs that are task and contextual performance. Individuals who scored high on openness to experience trait can attain the power to accept multiple challenges which means that career will grow in them (Jazayeri, Naami, Shekarshekan, & Taghipour, 2006).

Fifth hypothesis is related to the positive relationship between career satisfaction and career commitment among medical doctors was accepted. It means that the, more the doctors are satisfied with their career, the more they are committed towards job. As employees with high level of organizational commitment are more committed towards their career and they stay in the organization for the longer period of time. Belief and acceptance of goals and values within organization make them inspired, satisfied and committed towards career (Ahmed, 2017). Findings of this study are in line with the study of Alpena, Tas and Okur (2013) which stated that significant relationship is present between the commitment and satisfaction level of medical doctors.

Previous studies have suggested that career commitment acts as significant predictor and mediator in multiple studies (Kim et.al, 2015; Duffy et.al, 2011). It is hypothesized in the present study that career commitment acts as mediator between the personality traits (openness to experience, conscientiousness, extroversion, agreeableness and neuroticism) and career satisfaction of doctors. Mediation analysis confirmed the mediating role of career commitment with personality traits. Full mediation of career commitment is supported in the relationship of extroversion and career satisfaction that shows extrovert hospital sector employees (doctors) attain greater career satisfaction because of career commitment. Career commitment fully mediated the relationship between agreeableness and career satisfaction that shows that agreeable doctors attain greater career satisfaction because they are committed towards their hospitals. Conscientiousness positively and significantly affects the career satisfaction of doctors through the mediating role of career commitment. This shows that doctors possessing high sense of responsibility leads towards career commitment and hence conscientious doctors tends to attain higher career satisfaction. While neuroticism negatively and significant predict career satisfaction through mediating role of career commitment. It means that neuroticism interacts with career commitment to predict career satisfaction among doctors. Full mediation of career commitment has been proven in the relationship of openness to experience and career satisfaction of doctors. Doctors who have high openness to experience trait in their personality will have high career commitment that leads them towards higher career satisfaction level.

Satisfaction and commitment level of doctors' has no concern with gender. It means that gender has no impact on doctors' career satisfaction and career commitment (Atif, Khan &

Maqbool, 2015). It may be because of health sector known as respectable profession for both genders in the society of Pakistan.

Conclusion

Doctor's career satisfaction plays significant role in health industry and is influenced by different factors. The results showed personality traits to be associated with career satisfaction and career commitment of medical doctors. Personality traits like conscientiousness, extroversion and agreeableness are positively and neuroticism is negatively correlated to career commitment and career satisfaction of medical doctors. Apart from personality traits, monthly income and weekly working hours are predictors of career satisfaction of doctors. This study provided understanding to career counselors in guiding the client about the health career and serve as important tool in the selection and recruitment of doctors in hospitals at government and private sector.

Implications of the Study

Current study was conducted on a small scale so research findings cannot be generalized on larger scale. Few implications are mentioned below:

1. Present study provides insight to career counsellors' in guiding the client about the medicine profession on the basis of personality traits.
2. The present study can also be an impetus for researchers to plan more rigorous studies for exploring the multiple factors affecting career satisfaction and career commitment of professionals.

References

- Abdullah, I. (2013). *Effect of Big Five Personality model on employees' job performance considering the mediating role of employee's behavior & attitude*. A study on banking sector of Pakistan. Master's thesis, COMSATS Institute of Information Technology, Lahore.
- Abdullah, M. A., Mukhtar, F. et al. (2014). The health workforce crisis in Pakistan: a critical review and the way forward. *World Health Population*, 15 (3): 4-12.
- Acuna, T.S., Gomez, M. & Juristo, N. (2009). How do personality, team process and task characteristics related to job satisfaction and software quality. *Information and software technology*, 51(3). 627-639.
- Ackerman, C. (2017). Big Five personality traits & The 5 factor model. *Positive Psychology*. Retrieved from: <https://positivepsychologyprogram.com/big-five-personality-theory/>
- Afonso, P., Ramos, M. R., Saraiva, S., Moreira, C. A., & Figueira, M. L. (2014). Assessing the relation between career satisfaction in psychiatry with lifelong learning and scientific
- Ahmed, N.O. (2017). Career commitment: the role of self-efficacy, career satisfaction and organizational commitment. *World Journal of Entrepreneurship, Management and Sustainable Development*, <https://doi.org/10.1108/WJEMSD-06-2017-0038>.
- Ahmad, J., Ather, R. M. & Hussain, M. (2014). *Impact of big five personality traits on job performance (organizational commitment as a mediator)*. Management, knowledge and learning international conference 2014, Portoroz.
- activity. *Psychiatry Research*, 217, 210-214.
- Akpinar, A. T., Tas, Y., & Okur, M. E. (2013). The effect of job satisfaction and emotional exhaustion on affective commitment of emergency services employees. *Journal of Economic, Finance and Management Science*, 7(2), 169–176.
- Alarcon, G., Eschleman, K.J. & Bowling, N.A. (2009). Relationships between personality variables and burnout: a meta-analysis. *Work & Stress*, 23 (3), 244-263.
- Allameh, S. M., Ghafari, M., & Davoodi, S. M. (2012). Studying Impact of Personality Traits on Job Performance. *Journal of Basic and Applied Scientific Research*, 6293-6299.

- Alkheli, A.H. (2016). The relationship between personality traits and career choice. A case study of secondary school students. *International Journal of Academic Research in Progressive Education and Development*, 5 (2). Doi: 10.6007/IJARPED/v5-i2/2132.
- Allport, G.W. (1961). *Pattern and growth in personality*. New York: Holt, Rinehart & Winston.
- Amir, F., Naz, F., Hafeez, Q. S., Ashfaq, A., & Dogar, H.Y. (2014). Measuring the effect of five factor model of personality on team performance with moderating role of employee engagement. *Journal of Psychology and Behavioral Science*, 2(2), 221-255.
- Anderson, C, Flynn, F, Spataro, S (2008). Personality and Organizational Culture as Determinant of Influence. *Journal of Applied Psychology*, 53 (3).
- Arora, R. & Rangnekar, S. (2016). Linking the Big Five personality factors and career commitment dimensions: A study of the Indian organizations. *Journal of Management Development*, 35(9).1134-1148. Retrieved from: <https://doi.org/10.1108/JMD-10-2015-0142>.
- Armon, G., Shirom, A., & Melamed, S. (2012). The Big Five Personality Factors as Predictors of Changes across Time in Burnout and Its Facets. *Journal of Personality*, 403–427.
- Atif, K., Khan, H. U., & Maqbool, S. (2015). Job satisfaction among doctors, a multi-faceted subject studied at a tertiary care hospital in Lahore. *Pakistan Journal of Medical Sciences*, 31(3), 610–614. <http://doi.org/10.12669/pjms.313.7402>.
- Baay, P. E., van Aken, M. A. G., van der Lippe, T., & de Ridder, D. T. D. (2014). Personality moderates the links of social identity with work motivation and job searching. *Frontiers in Psychology*, 5, 1044. <http://doi.org/10.3389/fpsyg.2014.01044>
- Bakotic, D. (2016). Relationship between job satisfaction and organizational performance, *Economic Research-Ekonomska Istraživanja*, 29(1), 118-130, DOI: 10.1080/1331677X.2016.1163946.
- Ballout, H. I. (2009). Career Commitment and Career Success: Moderating Role of Self-Efficacy. *Career Development International*, 14(7). 655–669.
- Barnett, B. R., & Bradley, L. (2007). The Impact of organizational support for career development on career satisfaction. *Career Development International*, 12(7), 17–636. Retrieved from

- <http://dx.doi.org/10.1108/13620430710834396>.
- Becker, H.S. & Carper, J.W. (1956). The development of identification with an occupation. *American Journal of Sociology*, 61(4), 289-298. Doi: [org/10.1108/13620430911005708](http://dx.doi.org/10.1108/13620430911005708).
- Bexelius, T.S., Olsson, C., Järnbert-Pettersson, H., Parmskog, M., Ponzer, S & Dahlin, M. (2016). Association between personality traits and future choice of specialization among Swedish doctors: a cross-sectional study. *Postgraduate Medical Journal*, 92(1090):441–6.
- Bhattacharjee, S., Ray, K., Kumar Roy, J., Mukherjee, A., Roy, H., & Datta, S. (2016). Job Satisfaction among Doctors of a Government Medical College and Hospital of Eastern India. *Nepal Journal of Epidemiology*, 6(3), 596–602. <http://doi.org/10.3126/nje.v6i3.14762>.
- Blackwelder, R., Watson, K.H. & Freedy, J.R (2016). Physician wellness across the professional *Spectrum. Primary Care*, 43(2):355–61.
- Blau, G.J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58 (4), 277-288.
- Bozionelos, N., Bozionelos, G., Polychroniou, P. and Kostopoulos, K. (2014). Mentoring receipt and personality: evidence for non-linear relationships. *Journal of Business Research*, Vol. 67 No. 2, pp. 171-181.
- Borges, N.J & Savickas, M. L (2002). Personality and medical specialty choice: A literature review and integration. *Journal of Career Assessment*, 10(3):362–80.
- Boyce, C.J., Wood, A.M., Daly, M & Sedikides, C. (2015). Personality change following unemployment. *Journal of Applied Psychology*, 100(4):991–1011.
- Brown, S. D., & Lent, R. W. (2000). A social cognitive framework for career choice counseling. *The Career Development Quarterly*, 44, 354-366.
- Bui, TM. H. (2017). Big Five personality traits and job satisfaction. *Journal of General Management*, 42(3), 21-30. Retrieved from: <https://doi.org/10.1177/0306307016687990>
- Caldwell, D.F., & Burger, J.M. (1998). Personality characteristics of job applicants and success in screening interviews. *Personnel. Psychology*, 51.
- Career key (2008). *John Holland*. Retrieved from: <http://careerkey.blogspot.com/2008/12/dr-john>.

- Career Strategists. (2004). *What we do*. Retrieved from:
<http://www.careerstrategists.net/what.htm>
- Carpenter, C., Bauer, T., & Erdogan, B. (2010). *Personality, Attitudes, and Work Behaviors*. Jupiter images Corporation. Retrieved from
<http://courses.jonesinternational.edu/private/jiu/media/assets/>
- Cattell, Raymond B. (1950). *Personality: A systematic theoretical and factual study (McGraw-Hill publications in psychology)*. New York, NY: McGraw-Hill.
- Celik, T. G. & Oral, L. E. (2016). Big Five and Organizational Commitment – The Case of Turkish Construction Professionals. *Human Resource Management Research*, 6(1), 6-14. Doi: 10.5923/j.hrmr.20160601.02
- Chandel, J. K., Muscat, S. O., Sharma, D. S., & Bansal, D. (2011). Linking the Big Five Personality Domains with Organizational Commitment. *International Journal of Research in Commerce, IT & Management*, 19-24.
- Chen, D., Tsai, T.C., & Lei, S. (2013). Career satisfaction, commitment, and well-being among Taiwanese pediatricians. *Pediatrics and neonatology*, 54 3, 173-8.
- Christopher, A. S., Smith, S.C., Tivis, R. & Wilper, P. A. (2014). Trends in Physician work hours and career satisfaction. *The American Journal of Medicine*, 127(7).
- Chung, Y.B. (2002). Career decision-making self-efficacy and career commitment: gender and ethnic differences among college students. *Journal of Career Development*, 28 (4), 277-284.
- Cooper, R.A., Getzen, T.E., McKee, H.J & Laud, P (2012). Economic and demographic trends signal an impending physician shortage. *Health Affairs*, 21(1):140–54.
- Cohen, A. (2003). *Multiple Commitments in the Workplace: An Integrative Approach*. Lawrence Erlbaum Associates Publishers, Mahwah, NJ.
- Collarelli, S. M., & Bishop, R. C. (1990). Career Commitment: Functions, Correlates, and Management. *Group and Organization Studies*, 15, 158–176.
<http://dx.doi.org/10.1177/105960119001500203>

- Cristovao, M. (2015). Antecedents of Career Commitment in Entrepreneurs. *Honors Projects Overview*. 106. Retrieved from: http://digitalcommons.ric.edu/honors_projects/106.
- De Vaus, D. (2013). *Surveys in social research*. London: Routledge
- Doherty, E.M. & Nugent, E. (2011). Personality factors and medical training: a review of the literature. *Medical Education*, 45(2):132-40.
- Duffy, Rayan, D., Biryan, J., Steger & Michael, F. (2011). Calling and Work-Related Outcomes: Career commitment as a mediator. *Journal of Vocational behavior*, 78(2), 210-218.
- Edwards, J.R. (1991). Person-job fit: a conceptual integration, literature review, and methodological critique. In: CLCIT R, editor. *International review of industrial and organizational psychology*, vol. 6. Oxford: John Wiley & Sons.p. 283–357.
- Edwards, K & Quinter, M (2011). Factors Influencing Students Career Choices among Secondary School students in Kisumu Municipality-Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies*, vol. 02, no. 02.
- Elder, K.T., Wiltshire, J.C., Rooks, R.N., BeLue, R. & Gary, L.C. (2017).Health information technology and physician career satisfaction. *Perspective in Health Information Management*. C7(1):1-10.
- Eley, D.S., Leung, J.K., Campbell, N & Cloninger, C. R. (2017). Tolerance of ambiguity, perfectionism and resilience are associated with personality profiles of medical students oriented to rural practice. *Medical Teacher*. 39(5):512–19.
- Engler, B. (2013). *Personality Theories: An Introduction*, Houghton Mifflin.
- Erdogan, B., & Bauer, T. N. (2008). Enhancing career benefits of employee proactive personality: The role of fit with jobs and organizations. *Personnel Psychology*, 58, 859–891.
- Faqeer-ul-Ummil, U., Javed, R., & Javed, M. (2014).Impact of personality on career success. *International Journal of Innovation and Applied Studies*. 9(3), 1064-1072.
- Ferguson, E. & James, D. (2002). Factors associated with success in medical school and in a medical career: systematic review of the literature. *BMJ*, 324:952–7.
- Ferguson, E. & Lievens, F. (2017). Future directions in personality, occupational and medical selection: myths, misunderstandings, measurement, and suggestions. *Advances in Health Sciences Education*, (2):387–99.

- Foster, Nancy A., (2009). *Career satisfaction of sales professionals: The role of personality*. Master's Thesis, University of Tennessee. Retrieved from http://trace.tennessee.edu/utk_gradthes/525.
- Ganu, D., & Kogutu, N.C. (2014). Effect of big five personality traits on job satisfaction and organizational commitment in health care industry: the case of Kenya. *American Journal of Health Sciences*, 5 (2).
- Ghani, N. M., Yunus, N. S., & Bahry, N. S. (2016). Leader's personality traits and employees job performance in public putrajaya. *Procedia Economics and Finance*, 37, 46–51. Retrieved from <http://www.sciencedirect.com/science/article/pii/S2212567116300910>
- Goldberg, L.R. (1993). The structure of phenotypic personality traits: Authors' reactions to the six comments. *American Psychologist*, 48, 1303-1304.
- Goswami, S., Mathew, M. & Chadha, N.K. (2007). Differences in occupational commitment amongst scientists in Indian defense, academic and commercial R&D organizations. *Vikalpa*, 32(4), 13-27.
- Greenhaus, J. H., Callanan, G. A., & Godshalk, V. M. (2009). *Career Management*. Thousand Oaks, CA: Sage Publications, Inc.
- Greenhaus, J. H., Parasuraman, A., & Wormley, W. M. (1990). Effects of Race on Organizational Experiences, Job Performance Evaluations, and Career Outcomes. *Academy of Management Journal*, 33(1), 64–86.
- Greenhaus, J.H. (1971). An investigation of the role of career salience in vocational behavior. *Journal of Vocational Behavior*, 1(3), 209-216.
- Hawass, H. H. (2012). Committed Salesforce: an investigation into personality traits. *International Journal of Business and Management*, 147.
- Hall, D.T. (1971). A theoretical model of career sub-identity in organizational settings. *Organizational Behavior and Human Performance*, 6 (1), 50-76.
- Hirschi, A., Hermann, A. & Keller, A. (2015). Career adaptivity, adoptability and adopting. A

- conceptual and empirical investigation. *Journal of vocational behavior*. DOI10.1016/j.jvb.2014.11.008.
- Hoyler, M., Finlayson, SRG., McClain, C. D., Meara, J.G., Hagander, L. (2014). Shortage of doctors, shortage of data: a review of the global surgery, obstetrics, and anesthesia workforce literature. *World Journal of Surgery*, 38(2):269–80.
- Holland, J. L. (1985). *Making vocational choices: A theory of vocational personalities and work environments*. Englewood Cliffs, NJ: Prentice Hall.
- Hoffman, B.M., Coons, M.J. & Kuo, P.C. (2010). Personality differences between surgery residents, nonsurgery residents, and medical students. *Surgery*, 148(2):187–93.
- Hossain, ME, & Siddique, T (2012). Career Preference of Business Graduate in Bangladesh: A Case Study of Some Selected Private Universities. *Asian Business Review*, vol. 01, no. 1.
- Holland, J. L. (1959). A theory of vocational choice. *Journal of Counseling Psychology*, 6, 35– 45.
- Holland, J.L. (1973). *Making Vocational Choices: A Theory of Careers*. Prentice-Hall. Englewood Cliffs, NJ.
- Holland. L. (1976). *Vocational preferences*. Handbook of industrial and organizational psychology. Chicago: Rand McNally.
- Holland, J.L. (1996). Exploring careers with a typology: What we have learned and some new directions. *American Psychologist*.51 (4), 397–406.
- Hojat, M., Erdmann, J.B. & Gonnella, J.S. (2013). Personality assessments and outcomes in medical education and the practice of medicine: AMEE guide no. 79. *Medical Teacher*. 35(7):e1267-e1301.
- Huang, J. L., Bramble, R. J., Liu, M., Aqwa, J. J., Ott-Holland, C. J., Ryan, A. M., Wadlington, P. L. (2015). Rethinking the association between extraversion and job satisfaction: The role of interpersonal job context. *Journal of Occupational and Organizational Psychology*. DOI: 10.1111/joop.12138.
- Ijaz, M., & Khan, A. (2015). The Relationship of Big Five Personality Traits with Job Satisfaction among Banking Employees. *Journal of Applied Environmental and Biological Sciences*, 5 (5).

- Iqbal, S., Raffat, S. K., Sarim, M., & Siddiq, M. (2014). Career commitment: A positive relationship with employee's performance. *Science International Lahore*, 26 (5). 2415-2418.
- Jen, R. F. (2010). Is Information Technology Career Unique? Exploring Differences in Career Commitment & Its Determinants among IT & Non-IT Employees. *International Journal of Electronic Business Management*, 8(4), 263–271.
- Jeronimus, B. F., Riese, H., Sanderman, R., & Ormel, J. (2014). Mutual reinforcement between neuroticism and life experiences: A five-wave, 16-year study to test reciprocal causation. *Journal of Personality and Social Psychology*, 107, 751–764. doi:10.1037/a0037009
- Joo, R. & Ready, K. J. (2012). Career satisfaction. *Career Development International*, 17(3). 276 – 295.
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (Vol. 2, pp. 102–138). New York: Guilford Press.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm Shift to the Integrative Big-Five Trait Taxonomy: History, Measurement, and Conceptual Issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (pp. 114-158). New York, NY: Guilford Press.
- John, O. P., Hampson, S. E., & Goldberg, L. R. (1991). Is there a basic level of personality description. *Journal of Personality and Social Psychology*, 60, 348-361.
- Judge, T.A., Higgins, C. A, Thoresen, C.J., & Barrick, M.R., (1999). The big five personality traits, general mental ability and career success across the life span. *Personnel Psychology*, 52(3).621–52.
- Judge, T.A., Rodell, J.B., Klinger, R.L., Simon, L.S. and Crawford, E.R. (2013). Hierarchical representations of the five-factor model of personality in predicting job performance: integrating three organizing frameworks with two theoretical perspectives. *Journal of Applied Psychology*, Vol. 98 No. 6, pp. 875-925.
- Judge, T. A. & Zapata, C.P. (2015).The person-situation debate revisited: effect of situation strength and trait activation on the validity of the Big Five personality traits in predicting job performance. *Academy of Management Journal*, 58 (4), 1149-1179.

- Kappagoda, S. (2013). The Impact of Five-Factor Model of Personality on Organizational Commitment of English Teachers in Sri Lankan Government Schools. *International Journal of Physical and Social Sciences*, 1-10.
- Karavardar (2014). Career Commitment, Subjective Career Success and Career Satisfaction in the Context of Hazelnut Processing Industry in Giresun/Turkey. *International Journal of Business and Management*, 9 (6).
- Kasschau, R.A. (2000). *Glencoe Understanding Psychology*. Missouri: Glencoe Partners.
- Kassebaum, D.G & Szenas, P.L. (1994). Factors influencing the specialty choices of 1993 medical school graduates. *Academic Medicine*, 69(2):163–70.
- Khizar, U., Orcullu, J.D. & Mustafa, J. (2016). Relationship between personality traits and job satisfaction of police officers in Punjab, Pakistan. *International Journal of Business and Social Science*, 7(7).
- Kinfu, Y., Dalpoz, M. R., Mercer, H. & Evans, D. B. (2009). The health worker shortage in Africa: Are enough physicians and nurses being trained? *Bull World Health Organ*, 87(3): 225-30.[<http://dx.doi.org/10.2471/BLT.08.051599>] [PMID: 19377719]
- Kim, H.J., Shin, K.H. & Swanger, N. (2009). Burnout and engagement: a comparative analysis using the Big Five personality dimensions. *International Journal of Hospitality Management*, 28(1), 96-104.
- Kim, H., D.-s. Kang, et al. (2016). Career Commitment as a mediator between organization-related variables and motivation for training and turnover intentions. *Journal of Career Development*, 43(2): 130-144.
- Kisten, P. & Kluys, H. (2018). An evaluation of personality traits associated with job satisfaction among South African anaesthetists using the Big Five Inventory, Southern African. *Journal of Anesthesia and Analgesia*, 24:1, 9-15.DOI: 10.1080/22201181.2018.1433986.
- Kong, H., Cheung, C., & Song, H. (2012). From hotel career management to employees' career satisfaction: The mediating effect of career competency. *International Journal of Hospitality Management*, 31, 76-85.

- Kumar, K., Bakshi, A. & Rani, E. (2009). Linking the ‘Big Five’ personality domains to organizational citizenship behavior. *International Journal of Psychological Studies*, 1(2) 25-34.
- Kumar, K., & Bakshi, A. (2010). The Five-factor model of personality and organizational commitment: Is there any relationship. *Humanity and Social Sciences Journal*, 25-34.
- Lambert, T. W., Smith, F., & Goldacre, M. J. (2016). Changes in factors influencing doctors’ career choices between one and five years after graduation: questionnaire surveys of UK doctors. *Journal of the Royal Society of Medicine*, 109(11), 416–425. <http://doi.org/10.1177/0141076816672432>.
- Lebowitz, S. (2016). The ‘Big 5’ personality traits could predict who will and won’t become a leader. Business Insider. Retrieved from <http://www.businessinsider.com/big-five-personality-traits-predict-leadership-2016-12>.
- Li, Y., Guan, Y., Wang, F., Zhou, X., Guo, K., Jiang, P., Mo, Z., Li, Y. & Fang, Z. (2015). Big-five personality and BIS/BAS traits as predictors of career exploration: the mediation role of career adaptability. *Journal of Vocational Behavior*, Vol. 89, pp. 39-45.
- Lounsbury, W.J, Steel, P.R, Gibson, W.L & Drost, W, A (2008). *Personality traits and career satisfaction of human resource professionals*. Retrieved from http://info.ecareerfit.com/eCareerFit/CareerSatisfaction_HRProfessionals.
- Lounsbury, J. W., Loveland, J. M., Sundstrom, E. D., Gibson, L. W., Drost, A.W., & Hamrick, F. L. (2003). An investigation of personality traits in relation to career satisfaction.
- Maduakalom, I, (2010) Career development theories and their implications for high school career guidance and counselling. *The High School Journal*, 83(7), 28-40. *Journal of Career Assessment*, 11, 287–307.
- Mafini, C., & Dlodlo, N. (2014). The linkage between work-related factors, employee satisfaction and organizational commitment: Insights from public health professionals. *Journal of Human Resource Management*, 12(1). Retrieved from: <http://dx.doi.org/10.4102/sajhrm.v12i1.616>
- Maron, B.A., Fein, S., Maron, B.J., Hillel, A.T & Baghdadi, M.M., (2007). Rodenhauser P. Ability

- of prospective assessment of personality profiles to predict the practice specialty of medical students. *Proceedings (Baylor University Medical Center)*. 20(1):22–6.
- McAdams, D. P. (1995). What do we know when we know a person. *Journal of Personality*, 63, 365-396.
- Mehmood, S.I., Khan, M.A., Walsh, K.M. & Borleffs, J.C.C. (2013). Personality types and specialist choices in medical students. *Medical Teacher*, 35(1):63–8.
- Moorjani J, Manika M.S & Sujata (2007). Career Choice and Personality as Predictors of Cognitive. Interference. *Journal of Indian Academy of Applied Psychology*, 33(2): 291-294.
- Monalisha (2014). A correlation between the Personality traits (locus of control) and Stress: An analytical study of Corporate Professionals with special reference to the Delhi NCR Region. *International Journal of Latest Trends in Engineering and Technology (IJLTET)*, 3(3).
- Mullola, S., C. Hakulinen, et al. (2018). Personality traits and career choices among physicians in Finland: employment sector, clinical patient contact, specialty and change of specialty. *BMC Medical Education*, 18(1): 018-1155.
- Myrtle, R.C., Chen, D.R., Lui, C. & Fahey, D. (2011) .Job and Career Influences on the Career Commitment of Health Care Executives. *Journal of Health Organization and Management*, 25(6): 693-710.
- Nelson, K.W. (2011). *Motivation and personality: an examination of the big five personality Trait factors and their relationship with sales performance in a non-cash incentive program*. Doctoral dissertation, Capella University, Minneapolis.
- Ng, T.W., Eby, L.T., Sorensen, K.L. & Feldman, D.C. (2005). Predictors of objective and subjective career success: a meta-analysis. *Personnel Psychology*, Vol. 58 No. 2, pp. 367-408.
- Nunnally, J. C. (1970). *Introduction to Psychological Measurement*. New York: McGraw-Hill.
- Pachulicz, S., Schmitt, N., & Kuljanin, G. (2008). A model of career success: A longitudinal study of emergency physicians. *Journal of Vocational Behavior*, 73, 242–253.

- Pasha, T. A., Hamid, A. K. & Shahzad, A. (2017). Mediating Role of Career Commitment in the Relationship of Promotional Opportunities, Rewards and Career Success. *Pakistan journal of statistic and operation research*, 8 (1).
- Pan. B., Shen, X., Liu, L., Yang, Y. & Wang, L. (2015). Factors associated with job satisfaction among university teachers in north eastern region of China. *International journal of Environmental Research and Public Health*, 12 (12761-12775).
- Patrik, A.H. (2010). Personality traits in relation to job satisfaction of Management Educators. *Asian Journal of Management Research*. ISSN 2229-3795.
- Ranasinghe, V. R.1 & Kottawatta, H. (2016). Big Five Personality on Job Satisfaction: Perspective of Sri Lankan Male and Female School Teachers. *Imperial Journal of Interdisciplinary Research (IJIR)*. 2 (12).
- Robbins, S. P., Judge, T. A., Millett, B., Boyle, M. (2013). *Organizational Behavior*. Pearson Australia: Group Pty Ltd.
- Saucier, G., & Goldberg, L. R. (1998). What is beyond the Big Five? *Journal of personality*, 66, 495-524.
- Schneider, B. (1987). The people make the place. *Personnel Psychology*, 40, 437-453.
- Schneider, B., Goldstein, H.W. & Smith, D.B. (1995). The ASA Framework: An Update. *Personnel Psychology*, 48, 747-779.
- Schneer, J. A., & Reitman, F. (1997). The interrupted managerial career path: A longitudinal study of MBAs. *Journal of Vocational Behavior*, 51, 411–434.
- Sharma, M., Kaveri, S.N. & Yadava, A. (2010). Personality factors as correlates of health among adults, *Journal of the Indian Academy of Applied Psychology*, Vol. 36 No. 2, pp. 328-333.
- Sharma, A., Lambert, T.W. & Goldacre, M.J. (2012). Why UK-trained doctors leave the UK: cross-sectional survey of doctors in New Zealand. *Journal of Royal Society of medicine*, 105:25–34. doi:10.1258/jrsm.2011.110146.
- Sharma, M., Goel, S., Singh, S.K, Sharma, R. & Gupta, P.K. (2014). Determinants of Indian physicians' satisfaction & dissatisfaction from their job. *Indian Journal of Medical Research*, 139(3):409–417.

- Sohag, A. A., Memon, S., Mahmood, R. & Rao, M. H. (2012). A comparative study on factors causing job dissatisfaction among serving doctors at teaching hospitals of Hyderabad, Pakistan. *Pakistan Journal of Medical Science*, 28(4):710-715
- Spagnoli, P., & Caetano, A. (2012). Personality and Organizational Commitment: The Mediating Role of Job Satisfaction during Socialization. *Career Development International*, 255-275.
- Srikanth, P.B. & Israel, D. (2012). Career commitment & career success: mediating role of career satisfaction. *The Indian Journal of Industrial Relations*, 48(1).
- Surman, G., Lambert, T.W. & Goldacre, M. (2016). Doctors' enjoyment of their work and satisfaction with time available for leisure: UK time trend questionnaire-based study. *Postgraduate Medical Journal*, 92:194–200.
- Syed, N., Saeed, A., & Farrukh, M. (2015). Organization commitment and five factor model of personality: Theory recapitulation. *Journal of Asian Business Strategy*, 5,183-190.
- Tak, J., & Lim, B. (2008). The differences in career-related variables between temporary and permanent employees in information technology companies in Korea. *Journal of Career Development*, 34, 423–437.
- Teixeira, M.A.P., Bardagi, M.P., Lassance, M.C.P., de Oliveira Magalhães, M. & Duarte, M.E. (2012). Career adapt-abilities scale – Brazilian form: psychometric properties and relationships to personality. *Journal of Vocational Behavior*, Vol. 80 No. 3, pp. 680-685.
- Vandenberghe, C., & OK, B.A. (2013). Career Commitment, proactive personality and work outcomes: A cross-lagged study. *Career development International*, 18(7): 652-672. DOI: 10.1108/CDI-02-2013-0013.
- Wasserstrum, Y., Magnezi, R., Tamir, O., Koren, S., Lotan, D & Afek, A. (2017). The role of direct single monetary grants in residents' choice of field of residency. *Medical Teacher*, 39(5):548–54.
- Wallace, J.E., Lemaire, J.B & Ghali, W. A. (2009). Physician wellness: a missing quality indicator. *Lancet*. 374(9702):1714–21.

- Wille, B., De Fruyt, F. & Feys, M. (2013). Big five traits and intrinsic success in the new career era: a 15-year longitudinal study on employability and work-family conflict. *Applied Psychology*, 62(1), 124-156.
- Williamson, J.W., Pemberton, A.E., & Lounsbury, J.W., (2015) .An investigation of career and job satisfaction in relation to personality traits of information professionals. *Library Quarterly* 75(2): 122–141.
- Witt, L. A. (2002). The interactive effects of extraversion and conscientiousness on performance. *Journal of Management*, 28, 835–851. Doi: 10.1177/014920630202800607.
- Woods, S. A., Patterson, F.C., Wille, B. & Koczwara, A. (2016).Personality and occupational Specialty: an examination of medical specialties using Holland’s RIASEC model. *Career Development International*. 21(3):262–78.
- Woolf, K., Elton, C & Newport, M. (2015). The specialty choices of graduates from Brighton and Sussex Medical School: a longitudinal cohort study. *BMC Medical Education*, 15(1):46–57.
- Woolf, K., Elton, C. & Newport, M. (2015). The specialty choices of graduates from Brighton and Sussex Medical School: a longitudinal cohort study. *BMC Medical Education*, 15(1):46–57.
- Wolff, H.-G., & Kim, S. (2012). The relationship between networking behaviors and the Big Five personality dimensions. *Career Development International*, 43-66.
- Wortman, J., Lucas, R. E., & Donnellan, M. B. (2012). Stability and change in the Big Five personality domains: Evidence from a longitudinal study of Australians. *Psychology and Aging*, 867-874.
- Yildirim, I. B., Gulmez, M. & Yildirim, F. (2016). The Relationship between the five-factor Personality Traits of Workers and their Job Satisfaction: S Study on Five Star Hotels in Alanya. *Procedia Economics and Finance*, 39, 284-291.
- Zacher, H. (2014). Career adaptability predicts subjective career success above and beyond personality traits and core self-evaluations. *Journal of Vocational Behavior*, Vol. 84 No. 1, pp. 21-30.
- Zafar, S. and Meenakshi, K. (2012). A study on the relationship between extroversion-introversion

and risk-taking in the context of second language acquisition. *International Journal of Research studies in Language Learning*, 1(1).

Zhang, J., Wu, Q., Miao, D., Yan, X., & Yan, X. (2014). The Impact of Core Self-evaluations on Job Satisfaction: The Mediator Role of Career Commitment. *Science Indirect Research*. 116:809–822 .doi: 10.1007/s11205-013-0328

Annexures
Consent Form for Participation in Research Study

You are being invited to participate in the research study about personality traits and career satisfaction of professionals. The main purpose of this study is to examine the impact of personality traits either positive or negative on career satisfaction of medical doctors with mediating role of career commitment. Three questionnaires Big Five Inventory, Career Satisfaction Scale & Career Commitment Scale-Long Form will be administered. You are being asked to join the study because you fulfil the criteria of professionals required for this study. If you agree to participate in this study, you will be asked to complete demographic sheet & three questionnaires after instructions. This activity should take approximately 40 minutes. Your responses will be kept confidential and only researcher will have access to data. Upon completion of the questionnaire compensation will be provided. Your participation is voluntary and you may withdraw the session at any time. There is no harm for participants involved in this study and no risks are anticipated with your participation. Your participation would be very helpful to understand the relation of personality with career commitment and career satisfaction of medical doctors.

To Contact: If you have any further questions about this research, please feel free to contact the researcher Ayla Khan (aylakhn3241@gmail.com) at Department of Behavioral Sciences (DBS), School of Social Sciences & Humanities (S³H), NUST. You may also contact the faculty member supervising this research work Dr. Saeeda Khanum (saeeda.khanum@s3h.nust.edu.pk) at S³H, NUST.

Your participation in this research will be highly appreciated.

Consent Statement: I agree voluntarily to participate in this study; the research purpose and its nature has been satisfactorily explained to me.

Signature: _____

Date: _____

Author's Permission for Research instruments

Re: Author Permission for using Career Commitment Scale 5 Yahoo/Inbox ★



● **AYLA KHAN** <aylakhan3241@yahoo.com>
To: scolarelli@gmail.com



Jul 7, 2017 at 4:01 PM ★

Dear Stephen Colarelli

I hope you are doing well and find this email in good state of health. I am Ayla Khan, MS scholar of Career Counseling & Education Program at Centre for Counseling & Career Advisory (C3A), NUST, Islamabad, Pakistan. Currently, I am conducting research project entitled "**Impact of Big Five personality traits on career satisfaction with mediating role of career commitment**". The main purpose of this research study is to find out the impact of big five personality traits on career satisfaction of doctors, teachers & engineers by taking career commitment as mediator. I need "**Career Commitment Scale**" to find out the role of career commitment as mediator. I read your article online "**Career Commitment: Functions, Correlates, and Management**". From this article I came to know that you developed this scale for measuring the career commitment.

In this regard I request you to please provide me scale and permission for using it in MS research project.

I will be grateful to you for this favor.

Looking forward for your reply.

Regards
Ayla Khan
MS-Scholar
Career Counseling & Education Program



● **Stephen Colarelli** <scolarelli@gmail.com>
To: AYLAKHAN



Jul 7, 2017 at 6:01 PM ★

Yes. You may use the CES for your research.
Stephen Colarelli



● **AYLA KHAN** <aylakhn3241@yahoo.com>
To: jhg23@drexel.edu



Jun 6, 2017 at 3:35 PM ★

Respected Jeffrey Greenhaus

Hi, Hope You are doing well and find this email in good state of health. I am **Ayla Khan**, MS scholar of Career Counseling & Education Program at **Centre for Counseling & Career Advisory (C3A), NUST**, in Islamabad. I belong to underdeveloped country "Pakistan". Currently, I am doing my MS thesis work on " Impact of Big Five Personality Traits on career satisfaction of professionals". I require Career Satisfaction Scale for completing this project. I read your article online "**Effects of Race on Organizational Experiences, Job Performance Evaluations, and Career Outcomes**". From this article i came to know that you first time developed this scale for measuring the career satisfaction of professionals. In this regard, I need your favor and kindly give me permission of using **career satisfaction scale**. So that, I use this scale in my MS research work.

Waiting for your reply.

Regards
Ayla Khan
03315852553



● **Greenhaus, Jeffrey** <jhg23@drexel.edu>
To: AYLAKHAN



Jun 7, 2017 at 9:32 PM ★

Dear Ayla,

You have my permission to use the career satisfaction scale in your research.

Best wishes,

Jeff Greenhaus

Jeffrey H. Greenhaus
Professor and William A. Mackie Chair
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greenhaus@drexel.edu (email)

Career Satisfaction Scale

Instructions: Read statement carefully and indicate the degree to which you agree or disagree with each rating scale scoring from 1-5.

Strongly Disagree = 1

Disagree to some extent= 2

Uncertain = 3

Agree to some extent = 4

Strongly Agree= 5

S. No	Statements	Strongly Disagree	Disagree to some extent	Uncertain	Agree to some extent	Strongly Agree
1	I am satisfied with the success I have achieved in my career.					
2	I am satisfied with the progress I have made towards meeting my overall career goals.					
3	I am satisfied with the progress I have made towards meeting my goals for income.					
4	I am satisfied with the progress I have made towards meeting my goals for advancement					
5	I am satisfied with the progress I have made towards meeting my goals for the development of new skills.					

Big Five Inventory

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others*? Please write a number next to each statement to indicate the extent to which **you agree or disagree with that statement.**

1	2	3	4	5
Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly

I am someone who...

- | | |
|--|--|
| 1. _____ Is talkative | 18. _____ Tends to be disorganized |
| 2. _____ Tends to find fault with others | 19. _____ Worries a lot |
| 3. _____ Does a thorough job | 20. _____ Has an active imagination |
| 4. _____ Is depressed, blue | 21. _____ Tends to be quiet |
| 5. _____ Is original, comes up with new ideas | 22. _____ Is generally trusting |
| 6. _____ Is reserved | 23. _____ Tends to be lazy |
| 7. _____ Is helpful and unselfish with others | 24. _____ Is emotionally stable, not easily upset |
| 8. _____ Can be somewhat careless | 25. _____ Is inventive |
| 9. _____ Is relaxed, handles stress well. | 26. _____ Has an assertive personality |
| 10. _____ Is curious about many different things | 27. _____ Can be cold and aloof |
| 11. _____ Is full of energy | 28. _____ Perseveres until the task is finished |
| 12. _____ Starts quarrels with others | 29. _____ Can be moody |
| 13. _____ Is a reliable worker | 30. _____ Values artistic, aesthetic experiences |
| 14. _____ Can be tense | 31. _____ Is sometimes shy, inhibited |
| 15. _____ Is ingenious, a deep thinker | 32. _____ Is considerate and kind to almost everyone |
| 16. _____ Generates a lot of enthusiasm | 33. _____ Does things efficiently |
| 17. _____ Has a forgiving nature | 34. _____ Remains calm in tense situations |

35. _____ Prefers work that is routine
36. _____ Is outgoing, sociable
37. _____ Is sometimes rude to others
38. _____ Makes plans and follows through with them
39. _____ Gets nervous easily
40. _____ Likes to reflect, play with ideas
41. _____ Has few artistic interests
42. _____ Likes to cooperate with others
43. _____ Is easily distracted
44. _____ Is sophisticated in art, music, or literatur

Career Commitment Scale-Long Form

Instructions: Read statement carefully and indicate the degree to which you agree or disagree with each rating scale scoring from 1-7.

Strongly disagree = 1 Disagree = 2 somewhat disagree=3 neither agree or disagree=4

Somewhat agree= 5 agree=6 strongly agree=7

S. No	Statements	Strongly disagree	Disagree	Somewhat disagree	neither agree or disagree	Somewhat agree	Agree	strongly agree
1	What I am doing now is helping develop competence in the career I am interested in.							
2	I am willing to put in a great deal of effort beyond that normally expected in order to be successful in this career.							
3	I talk up this career to my friends as a great career to work in.							
4	I feel very little loyalty for this career.							
5	I would accept almost any type of job assignment in order to keep working this year.							
6	I find that my values and those associated with my career are very similar.							

7	I am proud to tell others I am working in this career.							
8	This career really inspires the very best in me in the way of job performance.							
9	It would take very little change in my present circumstances to cause me to leave this career.							
10	I am extremely glad that I chose this career over others I was considering at the time.							
11	There is not too much to be gained by sticking with this career identity.							
12	I am thinking of choosing a new career.							
13	There is not enough opportunity for advancement in my career.							
14	For me, this is the best of all possible careers in which to work.							
15	Deciding to work in this career was a definite mistake on my part.							
16	I have a good chance to use important skills and abilities of mine in this career.							
17	My present occupational situation leads in the							

	career direction that I want.							
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Item total correlation of Career satisfaction Scale

Item No	Statements	r
item 1	I am satisfied with the success I have achieved in my career.	.82**
item 2	I am satisfied with the progress I have made towards meeting my overall career goals	.78**
item 3	I am satisfied with the progress I have made towards meeting my goals for income.	.68**
item 4	I am satisfied with the progress I have made towards meeting my goals for advancement	.82**
item 5	I am satisfied with the progress I have made towards meeting my goals for the development of new skills.	.75**

Item-total correlation of Career Commitment Scale-Long Form

Item No	Statements	r
item 1	What I am doing now is helping develop competence in the career I am interested in	.38*
item 2	I am willing to put in a great deal of effort beyond that normally expected in order to be successful in this career.	.29*
item 3	I talk up this career to my friends as a great career to work in	.42*
item 4	I feel very little loyalty for this career.	.26*
item 5	I would accept almost any type of job assignment in order to keep working this year.	.52**
item 6	I find that my values and those associated with my career are very similar.	.24*
item 7	I am proud to tell others I am working in this career	.56**
item 8	This career really inspires the very best in me in the way of job performance.	.55**
item 9	It would take very little change in my present circumstances to cause me to leave this career.	.54**
item 10	I am extremely glad that I chose this career over others I was considering at the time.	.45*
item 11	There is not too much to be gained by sticking with this career identity.	.50**
item 12	I am thinking of choosing a new career.	.41*
item 13	There is not enough opportunity for advancement in my career	.28*
item 14	For me, this is the best of all possible careers in which to work.	.48*
item 15	Deciding to work in this career was a definite mistake on my part	.44*
item 16	I have a good chance to use important skills and abilities of mine in this career.	.45*
item 17	My present occupational situation leads in the career direction that I want.	.42*

Item total correlation of BFI Subscales

Extroversion

Item No	Statements	r
item 1	Is talkative	.69**
item 11	Is full of energy	.54**
item 16	Generates a lot of Enthusiasm	.69**
item 26	Has an assertive personality	.71**
item 36	Is outgoing, sociable	.71**
item 6	Is reserved	.80**
item 21	Tends to be quiet	.64**
item 31	Is sometimes shy, inhibited	.64**

Agreeableness

Item No	Statements	r
item 7	Is helpful and unselfish with others	.68**
item 17	Has a forgiving nature	.73**
item 22	Is generally trusting	.44*
item 32	Is considerate and kind to almost everyone	.59**
item 42	Has few artistic interests	.38*
item 2	Tends to find fault with others	.71**
item 12	Starts quarrels with others	.65**
item 27	Can be cold and aloof	.35*
item 37	Is sometimes rude to others	.51**

Conscientiousness

Item No	Statements	r
item 3	Does a thorough job	.82**
item 13	Is a reliable worker	.81**
item 28	Preserves until the task is finished	.72**
item 33	Does thing efficiently	.63**
item 38	Makes plan and follow through with them	.62**
item 8	Can be somewhat careless	.78**
item 18	Tends to be disorganized	.74**
item 23	Tends to be lazy	.67**
item 43	Is easily distracted	.67**

Openness to experience

Item No	Statements	r
item 5	Is original, comes up with new ideas	.41*
item 10	Is curious about many different things	.29*
item 15	Is ingenious, a deep thinker	.51**
item 20	Has an active imagination	.48*
item 25	Is inventive	.48*
item 30	Values artistic, aesthetic experiences	.51**
item 40	Likes to reflect, play with ideas	.47*
item 44	Is sophisticated in arts, music or literature	.49*
item 35	Prefers work that is Routine	.28*
item 41	Has few artistic interests	.46*

Neuroticism

Item No	Statements	r
item 4	Is depressed, blue	.62**
item 14	Can be tense	.62**
item 19	Worries a lot	.62**
item 29	Can be moody	.79**
item 39	Gets nervous easily	.81**
item 9	Is relaxed, handles stress well	.78**
item 24	Is emotionally stable, not easily upset	.67**
item 34	Remains calm in tense situations	.74**