

# The Mediating Role of Spiritual Intelligence in the Relationship between Personality Characteristics and Academic Success in the Students of Dentistry in Tehran University of Medical Sciences, Tehran, Iran

Sepideh Jafari<sup>1\*</sup> , Zeynab Mollaei<sup>2</sup> 

1- Department of Educational Management, Faculty of Humanities, Islamic Azad University, Ahvaz Branch, Ahvaz, Iran.

2- Department of Strategic Management, Faculty of Management and Accounting, Allameh Tabataba'i University, Tehran, Iran.

\*Correspondence should be addressed to Ms. Sepideh Jafari; Email: [sepideh-jafari@iauhvaz.ac.ir](mailto:sepideh-jafari@iauhvaz.ac.ir)

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## Abstract

**Background and Objective:** There is evidence to show that academic success has an important role in keeping cultural and scientific innovations up to date. Different variables affect academic success and predict it. Accordingly, the present study is an attempt to evaluate the relationship between personality traits and the academic success of the students of dentistry, as mediated by spiritual intelligence, in Tehran University of Medical Sciences (Tehran, Iran).

**Methods:** The present study is descriptive correlational. The statistical population included the students of dentistry in Tehran University of Medical Sciences in the academic year of 2016-2017, out of whom 214 students were randomly selected. The data collection instrument included standard questionnaires. Content analysis was used for analyzing validity of the questionnaire based on the views of experts in educational sciences. Reliability of the questionnaire was also examined using Cronbach's alpha, which was found to be 0.85 for the spiritual intelligence questionnaire, and 0.82 for the personality traits questionnaire. The collected data were analyzed using descriptive and inferential statistics. In this study, all ethical considerations were observed and the authors reported to conflicts of interest.

**Results:** The findings showed that the direct effects of Neuroticism (-0.29), Openness to Experience (0.35) and Conscientiousness (0.38) on the academic Success were significant ( $P < 0.01$ ). Also, the indirect effects results tested by the Sobel test showed that the indirect effect of Neuroticism (-2.22), Agreeableness (2.90), Openness to Experience (2.28) and Conscientiousness (3.13) on academic success, as mediated by spiritual intelligence, were positive and significant at 95% level of significance.

**Conclusion:** Based on the findings, in order to enhance students' academic success, attention should be paid to personality traits and spiritual intelligence.

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## Summary

### Background and Objective

Today, education can be regarded as a continuous process that continues throughout the life of an

individual and countries spend a large part of their income on educational activities (1); hence, understanding academic success is valuable in many respects (2). Different variables are believed to affect and predict academic success (3). For example, one of the specific variables is a person's

characteristics (4-7). Personality is a set of psychological traits and an organized and relatively stable mechanism within an individual that affects the individual's adaptability in the environment. In recent years, the five-factor perspective has emerged in the form of a prominent theoretical framework to guide the research into personality traits (8, 9). A review of the previous studies conducted on this topic indicates that conscientiousness, meaning the ability to insist on a responsibility and goal-oriented behavior, has the strongest relationship with academic success, and that in some cases openness has a positive relationship with academic progress (10); another factor that can cause academic success is spiritual intelligence (3, 9). According to Emmons, spiritual intelligence has several characteristics or capabilities that vary from person to person. These characteristics include: the ability to achieve excellence and to ascend, the ability to delve into spiritual depths and profound reflection, which includes things such as meditation and self-adherence, the ability to use spiritual capacities and resources to solve daily problems (11, 12).

Despite the fact that the previous studies were dedicated to scrutinizing the relationship between personality traits and spiritual intelligence and also the relationship of personality traits and spiritual intelligence with academic success, one of the major issues unaddressed in these studies was that they did not pay a simultaneous attention to the relationship between these variables; therefore, the main purpose of this study is to analyze the mediating role of spiritual intelligence in the relationship between personality traits and academic success among the PhD students of dentistry in Tehran University of Medical Sciences.

## Methods

**Compliance with ethical guidelines:** In the current study, an attempt was made to respect the freedom of participants to be in the study or not. Also, to stock to the ethical guidelines, assurance was given to the participants that their answers would be kept confidential.

The present study is descriptive correlational. The statistical population included PhD students of dentistry in the academic year of 2016-2017 in Tehran University of Medical Sciences, out of whom 114 were randomly selected using Cochran's formula. The data collection instrument included standard questionnaires. Content analysis was used for analyzing validity of the questionnaire based on the views of experts in

educational sciences. Reliability of the questionnaire was also examined using Cronbach's alpha, which was found to be 0.85 for the spiritual intelligence questionnaire, and 0.82 for the personality traits questionnaire. The collected data were analyzed using descriptive and inferential statistics.

## Results

The findings showed that Neuroticism (-0.29), Openness to Experience (0.35) and Conscientiousness (0.38) had a significant effect on academic success. Also, the results obtained in relation to indirect effects, as tested by the Sobel test, showed indirect effect of Neuroticism (-2.22), Agreeableness (2.90), Openness to Experience (2.28) and Conscientiousness (3/13) on academic success via spiritual intelligence as the mediating variable.

## Conclusion

The results related the relationship between personality traits and academic success showed that the psychological aspect of neuroticism had a negative and significant effect on academic success. In explanation for this result, it can be stated that neuroticism is a long-term desire to be in a negative emotional state (13); Also, the results showed that openness and conscientiousness had a positive and significant effect on academic success, which was consistent with the results of some of the previous studies (14-16) and was inconsistent with the results of some other studies (3, 17). Also, among the five dimensions of personality, the conscientiousness dimension had the greatest impact on academic success, which is in line with the findings of the previous studies (18, 19). The findings related to the relationship between personality traits and academic success as mediated by spiritual intelligence showed that the indirect effect of variables such as neuroticism, consensus, openness and conscientiousness on academic success was significant through the mediating role of spiritual intelligence. The neuroticism dimension had a negative relationship and other dimensions had a positive relationship with spiritual intelligence. The obtained results are matched with those of Zare et al. (6).

In explaining the results, it can be stated that neuroticism characteristics prevent the reception of the truth. Among these groups of people, the sensation that there is a higher power in whom they could trust is less strongly felt, and the existence of a great ego increases the distance between these individuals and the truth, and this

can have a negative effect on academic success. In contrast, the results have shown that, conscientiousness has the highest correlation with spiritual intelligence. Therefore, since responsible people make every endeavor to achieve their goals, they are expected to have a higher level of academic success.

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### Ethical considerations

The Ethics Committee in Biomedical Research of Shahid Beheshti University of Medical Sciences has confirmed this research.

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### Conflict of interest

The authors declared no conflicts of interest.

### Authors' contributions

Writing all sections of the article: First author; statistics consultant: Second author.

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