



## Study on Personality Types of Dentists in different Disciplines of Dentistry

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### ABSTRACT

**Aim:** The purpose of this study was to determine the most common personality type among dentists in seven selected clinical dentistry specialties using the Myers–Briggs Type Indicator (MBTI) and to compare between these different types of personalities.

**Materials and methods:** A survey containing the MBTI and demographic and practice questions was used to assess the personality styles of 243 dental specialists in Riyadh, Saudi Arabia. The survey results were analyzed using descriptive statistics.

**Results:** The results of the MBTI for 243 specialist dentists revealed, generally, a higher percentage of scoring for introversion (I) with an average of 65% than extroversion (E). The study identified 10 common personality types among these specialists: ISTJ, ISFJ, INFJ, ISTP, INFP, INTP, ENFP, ENTP, ENFJ, and ENTJ (extraversion–introversion (E–I), sensing–intuition (S–N), thinking–feeling (T–F), and judging–perception (J–P)). The dominant personality type in all seven clinical specialties in dentistry was ISTJ, with an average of 54%.

**Conclusion:** The personality types showed variation among the seven clinical dentistry specialties. However, among these seven clinician’s specialties in dentistry, more than 50% of the individuals shared one common type of personality (ISTJ).

**Clinical significance:** The identification of the personality type might help in their association with coworkers, students, and patients as well as knowing the individual preferences toward different specialties in dentistry.

**Keywords:** Interdisciplinary, Personality, Psychology, Specialty choice.

**How to cite this article:** Al-Dlaigan YH, Alahmari AS, Almubarak SH, Alateeq SA, Anil S. Study on Personality Types of Dentists in different Disciplines of Dentistry. J Contemp Dent Pract 2017;18(7):554-558.

**Source of support:** Nil

**Conflict of interest:** None

### INTRODUCTION

Individual differences in thoughts, feelings, and behavior are one of the most remarkable features of human nature.<sup>1</sup> “Personality consists of an individual’s native traits modified or accentuated by his training and environment. Personality is the result of the traits he possesses at birth plus his experiences through life.” The Myers–Briggs Type Indicator (MBTI) denotes a self-disclosure of personality trait developed by Myers et al.<sup>2</sup> It combines four directions of preferences of an individual to reach the type of personality. These four MBTI dimensions are extraversion–introversion (E–I), sensing–intuition (S–N), thinking–feeling (T–F), and judging–perception (J–P). The MBTI was coined to evaluate the personality types based on Jung’s philosophy.<sup>3</sup> Based on this, individuals have four basic “mental attitudes” and “mental functions.” These attitudes and functions comprise the T or F of an individual, which collectively form personality profile for that person. The opposing attitudes include “E–I” and “judging *vs* perceiving.” Intuition as well as T *vs* F form the opposing mental functions. Taken altogether, the mental attitudes and functions combine to generate 16 MBTI personality types.<sup>4</sup>

Several studies have been used in the past to assess personality types of dental students and applicants for postgraduate dental studies using MBTI method.<sup>5-8</sup> Various specialties in dentistry differ, and the personality characteristics of the dentists might be unique. Hence, the identification of them based on the type of personality might help in their association with coworkers, students,

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and patients.<sup>9-11</sup> Identification of the individual preferences toward different specialties in dentistry can be helpful in identifying individual choices. No studies were performed to classify the personality types of dentists working in various disciplines in dentistry. The objective of this study was to identify the most common personality types among seven selected clinical specialties in dentistry (pediatric dentistry, periodontics, endodontics, prosthodontics, orthodontics, restorative dentistry, and oromaxillofacial surgery) using the MBTI.

## MATERIALS AND METHODS

The ethical approval for the study was obtained from the College of Dentistry Research Center, King Saud University. A sample of clinicians was chosen based on their specialist training in dentistry. The sample for this study was selected among seven clinical specialties in dentistry (pediatric dentistry, periodontics, endodontics, prosthodontics, orthodontics, restorative dentistry, and oromaxillofacial surgery) and mainly working in Riyadh city, Saudi Arabia. They included those working in private clinics, government clinics, hospitals, dental centers, and university clinics. A written consent was obtained from all the participants to use the outcome of the survey for publication.

The questionnaire was split into two sections:

1. The specialists' demographic and biographic data including gender, number of years of experience, type of specialty, place of work, title of position, type of qualification, and place of postgraduate education.
2. The most common personality type MBTI was used, and comparisons were made between these different types of personalities in dentistry. The 93-item MBTI form<sup>12</sup> was administered to the subjects in this study.

Before the study, this questionnaire was tested in a pilot study carried out in Riyadh Colleges of Dentistry and Pharmacy and College of Dentistry, King Saud University. This study was undertaken on 40 specialty dentists. The questionnaire was subsequently revised, and slight modifications of the questions and format were then made for the final draft. The pilot study showed that the questionnaire could be completed in 5 to 10 minutes. The participants were asked to complete and return the questionnaire immediately after they completed it; their responses were collected by the face-to-face method.

## Statistical Analysis

All the data were analyzed using Statistical Package for the Social Sciences (SPSS) (version 20). Descriptive statistics and tables were generated to analyze the data. Closed questions, for example, "tick box" questions, were analyzed using the SPSS package.

## RESULTS

A total of 243 dentists from various specialties participated in the study. Their distribution is shown in Table 1. A total of 152 male dentists and 91 female dentists responded. The biographic and demographic data are shown in Table 2. Most of the specialist dentists (49%) had 11 or more years of experience. Regarding the place of work for the specialist dentists, it was shown that 37 (15%) of them work in private clinics only. The majority of sample [110 (45%)] work at governmental clinics, and 77 (32%) work at the University.

**Table 1:** Distribution of the sample by specialty type and gender

Type of specialty	Male n (%)	Female n (%)	Total n (%)
Pediatric dentistry	17 (46)	20 (54)	37 (15.2)
Periodontics	22 (61)	14 (39)	36 (14.8)
Endodontics	23 (72)	9 (28)	32 (13.2)
Prosthodontics	20 (55)	16 (45)	36 (14.8)
Orthodontist	17 (57)	13 (43)	30 (12.3)
Restorative dentistry	26 (63)	15 (37)	41 (16.8)
Oromaxillofacial surgery	27 (87)	4 (13)	31 (12.8)
Total	152 (63)	91 (37)	243 (100)

**Table 2:** Biographic and demographic factors (dentists 243)

Factors	n (%)
<i>Number of years of experience</i>	
1- 4 years	61 (25)
5-10 years	63 (26)
11 or more years	119 (49)
<i>Place of work</i>	
University clinic	77 (32)
Governmental clinic	110 (45)
Private clinic	37 (15)
Governmental and private	13 (5)
University and private	6 (3)
<i>Title of position</i>	
Professor	11 (5)
Associate professor	32 (13)
Assistant professor	20 (8)
Lecturer	20 (8)
Consultant	76 (31)
Specialist	167 (69)
<i>Qualification</i>	
Master's degree	150 (62)
Board certificate	88 (36)
Fellowship certificate	26 (11)
PhD, DSc., degree	35 (14)
Other specialty certificate	12 (5)
<i>Place of graduation</i>	
Saudi Arabia	122 (50)
Arabic country	32 (13)
United States of America	52 (21)
United Kingdom	22 (9)
Scandinavian country	5 (2)
Others (India, Pakistan, Australia, Ireland, Canada, Spain, Hong Kong, and France)	33 (13)

**Table 3:** Type of personality preferences for all specialist dentists

Type of specialty	Extraversion (%)	Introversion (%)	Sensing (%)	Intuition (%)	Thinking (%)	Feeling (%)	Judgment (%)	Perception (%)
Pediatric dentistry	38	62	62	38	76	24	76	24
Periodontics	36	64	58	42	50	50	64	36
Endodontics	41	59	53	47	75	25	78	22
Prosthodontics	26	74	64	36	55	45	64	36
Orthodontist	30	70	57	43	70	30	53	47
Restorative dentistry	34	66	51	49	76	24	63	37
Oromaxillofacial surgery	42	58	55	45	68	32	77	23
All specialists	35	65	57	43	67	33	68	32

Based on the academic title, 5% were professor, 13% associate professor, and 8% assistant professors. The remaining had a clinical title as a specialist dentist. Regarding qualifications, it was found that 62% of the specialists had a Master of Science degree and 14% of the specialist’s dentists had a PhD degree. The place of graduation from dental school (postgraduate) was also considered. The 132 specialist dentists (50%) were graduates from Saudi Arabia, and the 32 specialist dentists (13%) were from other Arab countries. The remaining had graduated from different countries including USA, UK, Scandinavian countries, India, Pakistan, Australia, Ireland, Canada, Spain, Hong Kong, and France.

The personality type preferences for all the specialist dentists are shown in Table 3. A higher percentage of all groups scored for introversion (I) with an average of 65% rather than extraversion (E) with 35%, preferred sensing (S) with 57% over intuition (N) with 43%, and chose thinking (T) with 67% over feeling (F) 33% and judging (J) with 68%, and over perceiving (P) with 32%. Most of the specialties had very similar figures in terms of percentage for the type of personality preferences; however, only the periodontics group had the same results between thinking (50%) and feeling (50%), and in the restorative group a very close percentage was found with sensing (51%) and intuition (49%).

The distribution of personality types for all the specialist dentists (243) is listed in Table 4. The majority of the dentists in the seven specialties were classified as ISTJ, with 132 specialist dentists (54%). The characteristic of this type is a quiet serious personality type “who earns success by thoroughness and dependability. They are practical, matter of fact, realistic, and responsible. Decides logically what should be performed and works toward it steadily, regardless of distractions”. They get happiness from doing things in an orderly and organized form. The second most frequent type with 42 (17%) of the specialist dentists was ENFP. The characteristic of this type (ENFP) is to have a warmly enthusiastic and imaginative personality type. They take life as full of possibilities and link events and confidently move forward. This type of personality readily gives appreciation and support to others. ENTP and ENFJ ranked third with 19 specialist dentists (8%) for each one of these two types. INFP ranked fourth with 10 specialist dentists (4%). These five personality types accounted for a majority of the specialist dentists with 222 (91%), while the remaining five personality types (ISFJ, INFJ, ISTP, INTP, and ENTJ) accounted for a minority of the specialist dentists with 21 (9%).

The personality types for each specialty are mentioned in Table 4. Pediatric dentistry had three types only (ISTJ 62%, ENFP 24%, and ENTJ 14%); periodontics had four

**Table 4:** Personality types for each specialty

Personality type	Type of specialty							
	Pediatric dentistry (%)	Periodontics (%)	Endodontics (%)	Prosthodontics (%)	Orthodontist (%)	Restorative dentistry (%)	Oromaxillofacial surgery (%)	All specialists (%)
ISTJ	62	50	53	56	53	51	55	54
ISFJ		8		8				2
INFJ		6				2		1
ISTP					3			0.4
INFP				11		12	3	4
INTP			6		14			3
ENFP	24	36		25	30		6	17
ENTP			16			25	13	8
ENFJ			25			10	23	8
ENTJ	14							2



types (ISTJ 50%, ISFJ 8%, INFJ 6%, and ENFP 36%); endodontics had four types (ISTJ 53%, INTP 6%, ENTP 16%, and ENFJ 25%); prosthodontics had four types (ISTJ 56%, ISFJ 8%, INFP 11%, and ENFP 25%); orthodontists had four types (ISTJ 53%, ISTP 3%, INTP 14%, and ENFP 30%); restorative dentistry had five types (ISTJ 51%, INFJ 2%, INFP 12%, ENTP 25%, and ENFJ 10%), and oromaxillofacial surgery also had five types (ISTJ 55%, INFP 3%, ENFP 6%, ENTP 13%, and ENFJ 23%).

## DISCUSSION

The existence of a set of common configurations of personality traits is an important question from the perspective of a person-centered personality psychology. Few studies were conducted earlier on the personality types of dental school applicants, dental students, and dentists.<sup>4,13</sup> Most of these studies were conducted in Western nations. There is a scarcity of literature on the personality types of dentists from Middle Eastern countries. Although specialist dentists work in various settings from private to the governmental sector or clinical and academic setups, there may be personality characteristics unique to a particular group of professional specialists, and these traits may distinguish specialist dentists from the general population or other health care workers.<sup>5,11,14</sup>

Out of different personality assessment tools Myers-Briggs Type Indicator (MBTI) is one of the most commonly applied.<sup>15-17</sup> It is designed to measure four dimensions of an individual's preferences, which combine to form an individual's personality type. These four MBTI dimensions are E-I, S-N, T-F, and J-P. Following is a review of the key characteristics of each of these dimensions.

The MBTI was constructed for classification of subjects into "types" based on the personality theories of Jung.<sup>3</sup> In his theory, individuals have four basic "mental attitudes" and four basic "mental functions". The objective of this exploratory study is to identify the type of personality within the dental specialists as it may have an implication for specialist dentists in their work environment. Knowing these different types of characteristics may help in different dental applications, contributing to success, communication patterns, relationships with coworkers and students and management style.

The data collection was based on the face-to-face interview method, and in some cases, the data were collected the next day after the dentist completed the questionnaire. It was decided to select a minimum sample of 30 specialist dentists in each specialty group as this figure would be a reasonable number for comparison between the specialties. A number of clinics in different areas in Riyadh including private, government, and university clinics were selected for sample collection. Approximately

40% of the respondents were female, and 60% were male, which gave a fair comparison between the genders.

The majority of respondents (62%) in this study were specialist dentists who had a clinical certificate and Master's degree in dentistry. It was noticed that 50% of the sample had graduated from Saudi Arabia, 13% from Arab countries and 45% from USA, UK, Scandinavian countries, and others. This was investigated to see if education from different dental schools had some influence in the type of personality characters for the respondent.

The results of this study showed that all groups of dental specialists preferred E-I. This result is in agreement with the studies conducted at Creighton University<sup>18</sup> and among the Chinese dental school applicants.<sup>4</sup> However, the results were in contrast to Morris<sup>6</sup> study, which focused on the personality type of dental school applicant in the United Kingdom. He found that the applicants preferred E-I.

This study showed that all groups of specialists preferred sensing (S) types, who tend to focus on the details, emphasize reasoning, prefer to obtain tangible results, and are content with routine jobs; while intuition (N) in contrast, attaches importance to imagination and inspiration, which is in agreement with earlier observations.<sup>4,6,18</sup> In our study, all groups of specialists preferred thinking (T), i.e., tend to pursue objective criteria and are good at analyzing errors. Feeling (F) types like to communicate with others in a compassionate style. This observation is in agreement with other studies reported from other parts of the world.<sup>4,6</sup>

The results of this study indicated that the ISTJ personality type was the most frequently occurring type, with more than 50% for every specialty dentist group. This finding is in accordance with the previous studies.<sup>4,5,18-20</sup> Jesse et al<sup>19</sup> explained that individuals who are ISTJ type have an abiding sense of responsibility for what they feel must be done, which is supported by their desire for and command of facts as well as their organizational ability. They are routine, have structure, see themselves as quiet, serious, and realistic, making decisions analytically, and logically more focused on their assigned tasks than on the opinions of other.

The second-ranked type was ENFP; such people have a personality type that is warmly enthusiastic and imaginative. They see life as full of possibilities and make connections between events and information very quickly. They need a lot of affirmation from others and readily give appreciation and support. This type was common as a second type in five specialties of the respondents. Pediatric dentists had only three personality types and also were the highest percentage among the other specialties with 62% of the most common personality type (ISTJ). Restorative dentistry and oromaxillofacial surgery had five personality types. In addition, the restorative

dentistry and oromaxillofacial surgery groups are very similar in four out of the five personality types; these types are ISTJ, INFP, ENTP, and ENFJ.

This finding indicated similarities in personality type between the different specialties in dentistry. Comparison with other studies was not possible since this is the first report to compare the personality types within different specialties in dentistry. Few studies that reported earlier were investigating dental school applicants, dental hygienists, or general dentists.<sup>5-7,15,18,20</sup> Two studies investigated the personality types of endodontic and pediatric dental specialists.<sup>5,11</sup> The predominant personality type of endodontics faculty and residents was ISTJ type, which is in agreement with this study.<sup>5</sup> Needleman et al<sup>11</sup> found that from the 16 personality types of the MBTI, the six most prevalent personality types in pediatric dentists were ISTJ, ISFJ, ESTJ, ESFJ, ENFJ, and ENFP. This observation was in agreement with the observations of this study showing ISTJ and ENFP as the predominant personality type among pediatric dentists.

The observation of this study revealed that 91% specialist dentists fall into five common personality types (ISTJ, ENFP, ENTP, ENFJ, and INFP). The remaining 9% accounted for ISFJ, INFJ, ISTP, INTP, and ENTJ personality type.

## CONCLUSION

From this study, it can be concluded that personality type varied among the seven clinical specialties in dentistry. More than 50% of all specialists shared one common type of personality (ISTJ). Further studies with a large sample group are mandatory to substantiate our observations.

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