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Distribution of the Myers Briggs Type Indicator types in an Emergency Medicine residency training program in Saudi Arabia.

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Abstract

Objective: MBTI is a valuable tool that aids individuals to categorize their personality preferences. This study was designed to compare and apply the Myers Briggs Type Indicator tool on the Emergency Medicine residents in the training program with the general population and explores the most commonly accepted personality types.

Methods: A cross-sectional descriptive analysis was conducted by using an online MBTI tool administered on all Emergency Medicine residents at every level of training during the period of 2014-2015 in Riyadh, Saudi Arabia. The study included residents from five training centers. The survey was distributed through email and personal contacts.

Results: Of 144 residents, 142 participants responded to the survey (26.8% of them were females). Extroversion (81%) and Intuitive (59%) traits were more commonly exhibited than observed in the general Saudi population. The most common personality types found were ENTJ (14.8%) and ESTJ (14.1%).

Conclusion: The study demonstrated that the distribution of MBTI personality traits and types in Emergency Medicine residents are notably different from the general population. This has implications on educational methods and objectives used in the training programs. This evidence may be valuable in health manpower planning and in inspecting admission policies of medical residencies and schools.

Keywords: Emergency Medicine, Education, Residents, Myers Briggs Type Indicator.

1. INTRODUCTION

The way an individual relates and perceives his world around him is what sculpts his personality. These types can be identified using many psychological methods; one of which is the Myers Briggs Type Indicator (MBTI), which was theorized in 1920. Then and there, it was developed by Isabel Myers and her mother Katherine Briggs in the year 1940 [1, 2]. The reliability of the MBTI test is found to be useful and strong, even though variations do exist [3]. Likewise, many studies have evaluated the MBTI tool validity in 2 groups: “the validity of the four separate preference scales” and “the validity of whole types or specific combinations of preferences [4, 5].” This tool provides a description of an individual process for decision making, interacting mechanism with the external environment, and perception of the world. The recent “MBTI form M version” comprises of 93 enquiries as well as needs about 15-25 minutes to finish the questionnaire. The findings can mainly be presented through four dichotomies: “Judging vs perceiving,” “Thinking vs Feeling”, “Extraversion vs Introversion”, and “Sensing vs Intuition.” All of these dimensions primarily leads to sixteen different possible types or combinations.

In 1962, since the initial publication, the MBTI tool has been administered to millions of individuals globally as a tool for career development, conflict management, leadership and coaching, and team building [1, 2, 6]. Understanding the different types of personalities has been revealed to improve development in many aspects such as work environment, education, communication, and many others [7, 8]. However, applying this tool in an emergency medicine environment has just been started and previous literature has revealed a scarcity of data. An article was recently published discussing the most common types comprehended among ED physicians in Australia. A common type referred to as “Extraverted Sensing Thinking Judging” (ENTJ) displayed 17.7% (12 out of 68 individuals) of the participants to respond to the questionnaire [9]. However, this does not relate to learners in our field, nor is it related to our national experience. To our knowledge, there are no analogous evidences found in the literature, plus no studies relates to emergency medicine residency training program in Saudi Arabia. Therefore, this study contributes to the literature by addressing this gap. It is believed the MBTI is a valuable utility to help determine the most appropriate education modalities for the individuals training in the specialty [7, 10, 11]. Therefore, the objective of this study was to apply the MBTI tool on the Emergency Medicine residents in the training program, describe the most common personality types, and compare them to the general population.

2. METHODS

A cross-sectional descriptive analysis using MBTI tool surveyed Saudi Emergency Medicine residents. These respondents demonstrated to be a convenience sample of 144 residents from five training centers who decided to complete the survey during the time period of 2014-2015 in Riyadh, Saudi Arabia. Only 142 medical residents responded to the online survey. The Myers Briggs Type Indicator was calculated via an online tool found on various websites. The website used in the study was “www.16personalities.com” which provides a free MBTI survey calculation for general use [12]. The survey was distributed to the residents via e-mail, and the results were received during the academic year 2015. Written consent was also obtained from each individual who agreed to participate in the study. The website [12] was contacted to provide a list of the personality results that were performed by individuals living in Saudi Arabia at a same time period of the survey for comparison purposes. The analysis was performed using IBM Statistical Package for Social Sciences (SPSS) version 22.

3. RESULTS

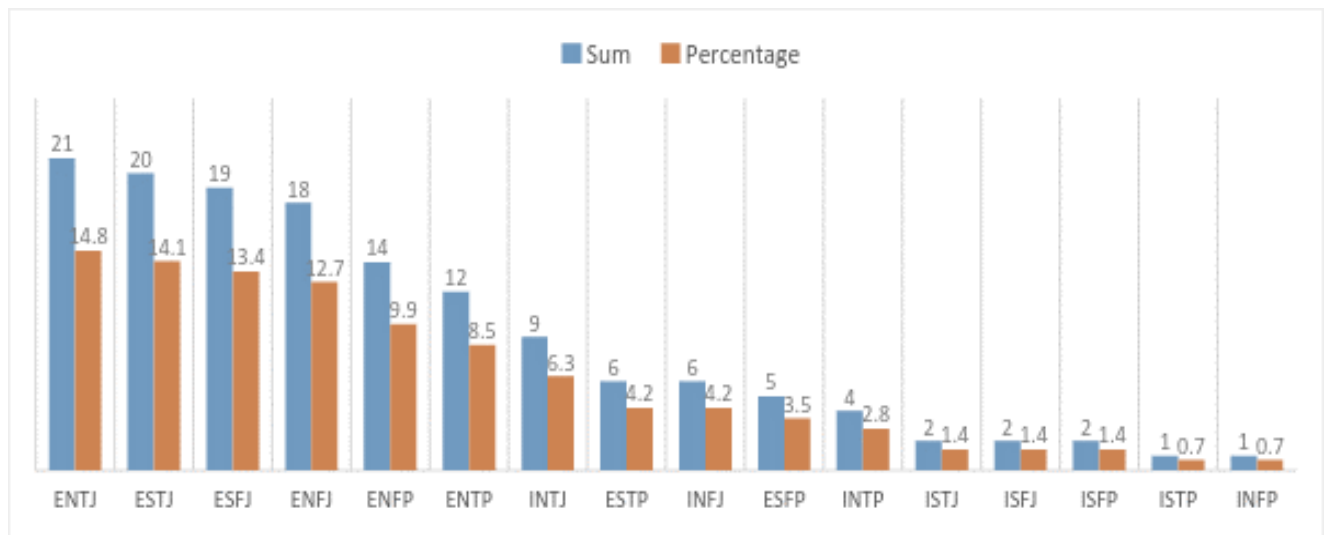
The study included 144 residents acquiring EM residency training in Riyadh, Saudi Arabia. The residents were recruited from five different training sites in Riyadh. Two of the residents did not reply to the e-mail, so the results were based on 142 residents who responded to the survey. Among 142 residents; 38 of them were female residents (26.8%) and 104 were males residents (73.8%).

The distribution of the individual traits of the MBTI is demonstrated in Table 1. The Extroversion (E) trait was found to be more dominant than the Introversion (I) trait; with 115 emergency residents (81%) compared to 27 residents (19%). The most common personality types among prospective emergency residents include the Judgment trait (J), Intuition (N) and Thinking (T) than their counter traits with percentages of 68.8%, 59.9% and 54.2% respectively.

Table1. Frequency of MBTI profile counts (Percentages) among Emergency Residents

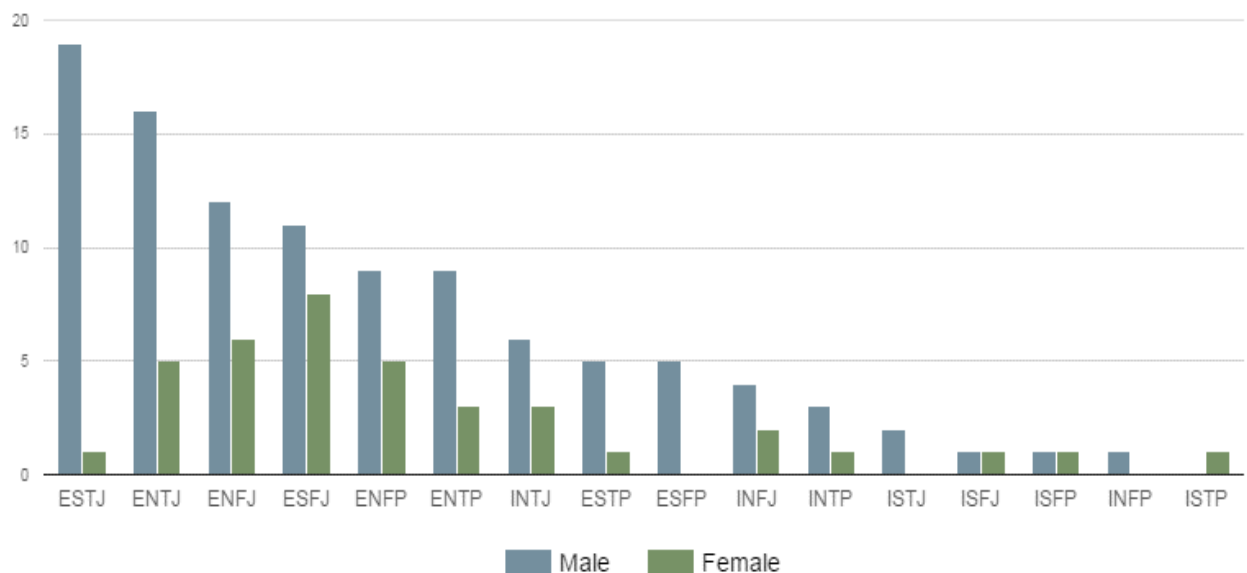
Personality preference	Count (n)	Percent (%)
Extraversion (E)	115	81%
Introversion (I)	27	19%
Sensing (S)	57	40.1%
Intuition (N)	85	59.9%
Thinking (T)	77	54.2%
Feeling (F)	65	45.8%
Judging (J)	97	68.8%
Perceiving (P)	45	31.7%

All 16 personality types of the MBTI were observed in this study, ranging from 14.8% to 0.7% as shown in Figure 1. There was a good distribution across all personality types in our sample. The most common type seen among the residents was the ENTJ type exhibited in 21 residents (14.8%). Followed by the ESTJ type exhibited in 20 residents (14.1%), the ESFJ type were exhibited by 19 residents (13.4%), and the ENFJ type were exhibited by 18 residents (12.7%). The remaining personality types were less exhibited i.e. by 10%. Personality types that have extroverted (E) and Intuitive (N) traits are predominant in the sample of emergency medicine residents.

Figure1. Frequency of each personality type among Emergency Medicine residents

The percentage of each type of personality according to the gender is demonstrated in Figure 2. The overall distribution was similar between both genders. However, female residents are more likely to carry personality types “Feeling (F) trait” as opposed to the “Thinking (T) trait” than males.

Figure 2. A column chart showing the distribution of the personality types between both genders of emergency medicine residents



The sample demonstrates a significant variation among the general Saudi population also shown in table 2, demonstrating the differences between percentages. The most prominent difference is the dominance of ENTJ type in the emergency medicine residency program while being the rarest type in the general population. We also noticed that there is a significant dominance of all the personality types that contain the Intuitive (N) trait in the residency program, while they are less common in the general population.

Table 2. Comparison of the percentage of each personality type between the general Saudi Arabian population and the Emergency Medicine residents.

	Saudi Arabian general population (%)	Emergency Medicine residents (%)
ESFJ	24.6	13.4
ESFP	16.6	3.5
ESTJ	13.5	14.1
ISFP	8.9	1.4
ISFJ	8.5	1.4
ESTP	6.1	4.2
ISTJ	6.0	1.4
ISTP	4.2	0.7
ENFP	2.5	9.9
INFP	2.2	0.7
ENFJ	1.5	12.7
INTP	1.3	2.8
INFJ	1.2	4.2
ENTP	1.1	8.5
INTJ	1.0	6.3
ENTJ	0.9	14.8

4. DISCUSSION

This study is the first to follow personality types with MBTI tool through medical school and Emergency Medicine residency training. Our finding is inconsistent with the findings of Australian senior Emergency physicians [9]. We believe most of our results can be generalized to other emergency residency programs. The primary reason to explore the predominance of Extrovert (E) and Intuitive (N) traits in an Emergency medicine training program are as follows: Extroverts are expected to feel in place with a specialty that requires a lot of teamwork and patient encounters such as Emergency medicine. Furthermore, Intuitive people are more likely to feel comfortable in a non-linear type practice with numerous medical issues, and the shift work makes it comfortable for them to run a free lifestyle, while making it difficult for the organized people of the Sensing (S) trait [6]. Therefore, our observation has clear justification from the type of practice.

The findings of our study can influence the type of teaching method emphasizing on a training program. Choosing a specific method of teaching to conduct a training program would require the methods to be aligned with the competencies required on a general basis. However, it also requires knowing the strengths and deficits expected from the personality preferences of the learners. Extroverted students were more likely to learn during their shift or in group teaching sessions as they were energized by talking to people and mostly learn with interaction [13, 14]. Therefore, making it vital for emergency training programs to use this aspect by focusing on group teaching methods such as tutorial sessions and simulation sessions based on group interaction. In addition, it is important to allow learners to talk about

their ideas and verbalize their thoughts during patient encounters or after procedures [13, 14]. The sensing - Intuitive trait are the most common cause of miscommunication between learners and instructors [14]. Therefore, it is important to have a different strategy for each of the learners of both traits. Due to the fact that Emergency medicine has a large proportion of intuitive learners, the training program should allow some learners room to debate and look at the bigger picture. They will need a room to be creative in their solutions along with processing theories before application [14].

Our study demonstrated that leadership personality types (ESTJ, ENTJ and INTJ) are predominant in the Emergency medicine training program. These MBTI types function very well in leadership positions [15]. They add to the ability of the resident to establish clinical and bedside leadership that is required by the profession [16]. Addition of formal training on leadership skills and focusing feedback on leadership in the work area should be a must in all emergency medicine residency programs. It helps serve the specialty and makes Emergency medicine a source of leaders in healthcare practice [17, 18].

Limitations of this study include its relatively small size even though it has included multiple centers of training, it did not account for the possibility of changing MBTI types during the training process, and we did not use confirmatory methods such as interviewing the candidates to verify the survey result. Future studies possibly will entertain more association between appropriate teaching and assessment methods with the MBTI types in learners. They also may associate future career choices after residency and the MBTI types.

5. CONCLUSION

In summary, this study examined the distribution of MBTI emergency medicine residency programs that were notably different from the general population, devising characteristics that may influence educational decisions in training programs. Further analyses may elicit valuable evidence related to health manpower planning and in inspecting admission policies of medical residencies and schools.

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