

Imposter Syndrome among Undergraduate Medical Students in Baghdad

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Abstract

Background: Imposter syndrome is a psychological condition in which a person's fails to acknowledge and recognize their achievements regardless of having proof for fear they might come across as a fraud. **Objectives:** To find out the rate of imposter syndrome and its relation to grade and gender among medical students. **Subjects and Method:** A cross-sectional study conducted between December 2023 and February 2024, among a convenient sample of students from college of medicine, Al –Mustansiriyah University. Data was collected via self – administrated questionnaire based on Clance Imposter Phenomenon Scale (CIPS) to determine the prevalence of imposter syndrome. **Results:** Five hundred and fifty-three students enrolled in this study. According to Clance IP scale, 281(50.8%) of the study group were designated as moderate Imposter characteristics. The results showed that moderate Imposter characteristics was observed among 109 (46.58%) of male students and 172 (53.92%) of female students. Moreover, intense IP experiences was noticed more among male students (6.41%) in comparison to (4.39%) of female students. The results demonstrated that moderate Imposter characteristics was a shared complained among the four grades students enrolled in the study, as (47%,51.56%,53.41% & 51.85%) of the 2nd, 3rd, 4th and 5th students respectively. Furthermore, 5th grade students reported the highest rate (8.64%) of intense IP experiences in comparison to other grades. **Conclusion:** The imposter phenomenon exists in a meaningfully high rate among medical students. Both genders are at equivalent risk of having an imposter phenomenon. Medical college administrations need to implemented some interventions that can address this problem and improve the wellness of medical students.

Keywords: Imposter, Rate, Medical students, Baghdad.

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INTRODUCTION

Impostor syndrome is a psychological phenomenon in which subjects doubt their accomplishments and have a persistent, often have internal feeling of fear of being exposed as a "fraud" [1].

Medical students are at high risk of this syndrome, they lack the confidence in themselves, thinking that they are not as intelligent as the rest of their colleagues, and are not matching what their colleagues, teaching staff nor their families expectations [2].

Imposter syndrome is commonly seen among high intelligence personnel, as academic and medical fields, where there is a struggle in idealism and competence of high scoring, this is noticed to be built in within the sufferer personality even before medical school entry as was recorded by previous studies, that

physicians have high occurrence of imposter syndrome that it could reach up to seventy percent [3-6].

Many factors can contribute to the occurrence of the above phenomenon as: subjects requiring skills, difficult subjects and even gender [1, 2, 7-9].

Imposter syndrome had been linked to psychological ailments as anxiety, depression, poor sleep quality, stress that are common in medical students because of their stressful life [4, 9-19].

Imposter syndrome and medical education

Imposter syndrome has several potential implications for medical education.

Medical students suffering from imposter syndrome have been noticed that they less likely to participate in various learning activities, less courageous

as volunteers which will negatively affects their learning capabilities as future physicians [11].

Studying this syndrome among medical students is common, since they will sooner or later at risk of such phenomenon because they are under continuous pressure of perfection and hard working even during their career as physicians [5].

Rational of the study

While imposter syndrome has been extensively studied in Western countries, there remains a very limited number of researches exploring its prevalence and impact on medical students in Iraq. Understanding the prevalence and factors contributing to imposter syndrome among medical students is crucial for designing appropriate means to address this problem.

Aim of the study: The current study was designed to find out the frequency of imposter syndrome among medical students from college of medicine AL Mustansiriyah University, Baghdad, Iraq.

SUBJECTS AND METHOD

Study Design and Study Participants: A cross-sectional study was conducted over a period of three months from December 2023 to end of February, 2024 at College of medicine, Al –Mustansiriyah University, Baghdad, Iraq.

The study group included a convenient sample of students from 2nd, 3rd, 4th, and 5th grades of medical College, while those from 1st and 6th grades were excluded from the study due to the lack of accessible to appropriate number of participants from these grades as they were involved in training activities out the college campus at the time of data collection.

Study Instrument and data collection

A self – administrated questionnaire that designed by the study team after revising the related studies allocating a similar topic was utilized for data collection.

The questionnaire entailed of two parts.

1. **Part one** covered some sociodemographic characteristic of the participants (gender and grade).
2. **Part two** consist items of the Clance Imposter Phenomenon Scale (CIPS).

The calculated Cronbach α -coefficient of the scale is 0.92–0.96, which point to a high grade of reliability based on previous studies [12,13].

A Clance IP scale, with a 20- item questions, each with five sentiments showing severity from none to very sever levels⁽¹⁾ was used to determine the level of imposter syndrome among the study group.

A score of one awarded for not at all true, score 2 for rarely, score 3 for sometimes, score 4 for often, and score 5 for the answer of very true.

After answering all the questions, scores of each response were added to obtain a final score ranging from 20-100.

The scores categorized as follows to identified the level of imposter syndrome into [1]:

- Few Impostor characteristics: 40 or less
- Moderate IP experiences: 41-60
- Frequently Impostor feelings:61-80
- intense IP experiences: higher than 80
- The objective and process of filling the questionnaire were clearly communicated by the study team to the students who were recruited at their break time, times between lectures and labs or clinical sessions.
- The students were informed that contribution in the study was absolutely noncompulsory for all students and this will take about ten minutes of their time.
- The students who decided to join the study were then provided with questionnaire sheet, consent page attached to it and has given the agreement to join in the study.
- To confirm obscurity, the students were asked not to put names on the questionnaire form.

Statistical Analysis:

The collected data was entered into Excell, then presented by suitable graphs and tables as being qualitative, to test association, chi square test was applied, the results would be considered significant if the p value was less than 0.05%

RESULTS

Five hundred and fifty-three (553) students were enrolled in the study with a response rate of 100%. Out of this sample, 234 (42.31%) students were males and 319 (57.68%) were females. Grade -wise, the majority of participants were from the 4th and 2nd stage, with 176 (31.82%) and 168 (30.37%) respectively. (Table -1).

Table-1: The distribution of study group according to sex and college grade(N=553)

Demographic factor	N (%)
Gender	
Male	234 (42.31%)
Female	319 (57.68%)
Grade	
2 nd Stage	168 (30.37%)
3 rd Stage	128 (23.14%)
4 th Stage	176 (31.82%)
5 th Stage	81 (14.64%)

According to Clance IP scale, 281(50.8%) of the study group were define as moderate Impostor characteristics, and only 29 (5.2%) have intense IP experiences (Figure- 1).

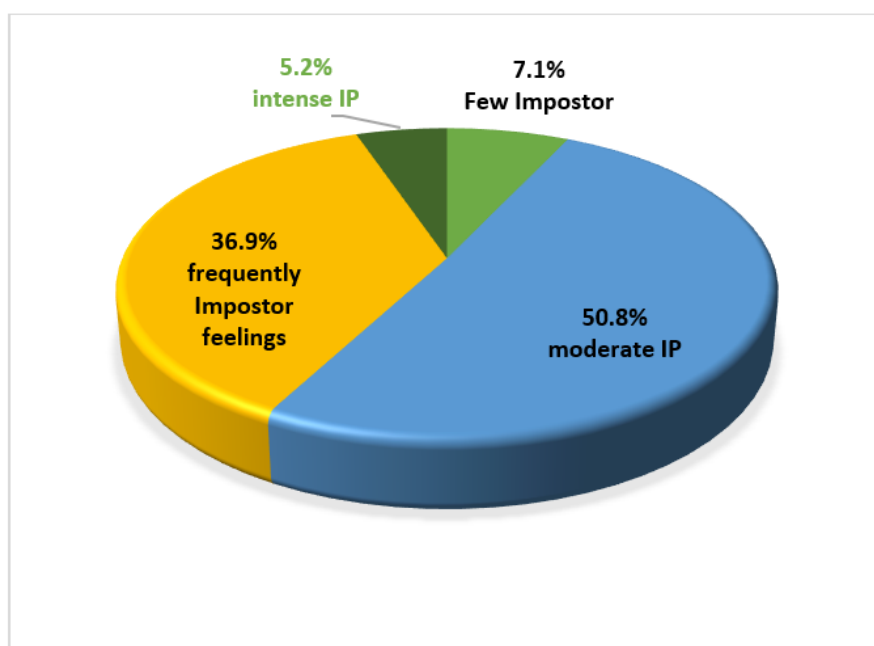


Figure 1: Severity of imposter syndrome among studied students

The results in table-2 shows the severity of IP in relation to gender. Among male students (46.58%) of them were having moderate IP experiences, in comparison to 53.92% of female students. Moreover,

male students had higher rate (6.41%) of intense IP experiences. Yet there were non-significant associations (*p*-value is .108696) between level of IP and students' gender.

Table-2: The distribution of study group according to gender and Level of Imposter Syndrome (N=553)

Level of Imposter Syndrome	Total N (%)	Males N (%)	Females N (%)
Few Impostor characteristics	39 (7.1%)	13 (5.56%)	26 (8.51%)
moderate IP experiences	281 (50.8%)	109 (46.58%)	172 (53.92%)
frequently Impostor feelings	204 (36.9%)	97 (41.45%)	107 (33.54%)
intense IP experiences	29 (5.2%)	15 (6.41%)	14 (4.39%)

Table-3 display severity of IP in relation to college grade. Suffering from moderate IP was a common feeling among the students from four grades enrolled in the study, as (47%,51.56%,53.41%& 51.85%) of the 2nd,3rd,4th and 5th students respectively. While 5th grade students reported the upper most rate

(8.64%) of intense IP experiences in comparisons to other grades, where 2nd grade students had the lowest rate (3.6%) of the same issue. When chi square test was applied, the results failed to show statistically significant associations between level of IP and the students college grades (The *p*-value is .328692.).

Table-3: The distribution of study group according to Level of Imposter Syndrome and college grade (N=533)

Level of Imposter Syndrome	2 nd grade N (%)	3 rd grade N (%)	4 th grade N (%)	5 th grade N (%)
Few Impostors characteristics	9 (5.4%)	7 (5.47%)	15 (8.52%)	8 (9.88%)
moderate IP experiences	79 (47.0%)	66 (51.56%)	94 (53.41%)	42 (51.85%)
frequently Impostor feelings	74 (44.0%)	48 (37.50%)	58 (32.95%)	24 (29.63%)
intense IP experiences	6 (3.6%)	7 (5.47%)	9 (5.11%)	7 (8.64%)

DISCUSSION

Imposter syndrome or phenomenon is not new, but is recently gaining more importance due to its occurrence among individuals in various positions in different fields in the community.

The results of the current study revealed that about half (50.8%) of the studied students were have moderate Impostor characteristics and (5.24%) have intense IP experiences according to Clance IP scale.

These results are alarming and must be taken into consideration as the severity of moderate and intense imposter syndrome displays that this syndrome is noteworthy and is not limited to general or few imposter syndrome.

Comparable results were also reached by previous study conducted among Medical Students at Jouf University, Saudi Arabia which found that (50.30% & 6.70%) of the students suffered from moderate and intense imposter features respectively [14].

The present study findings were also supported by former study by Levant *et al.*, (2020) [9] which indicates that medical students experienced moderated-to-strong IP.

Furthermore, the rate of IP among study participants was with in the ranges reported by prior studies conducted among medical students from different countries [4,15,16].

Studies exploring imposter phenomenon occurrence in relation to gender showed mixed results, some showed high frequency among males, others showed higher risk among females, while some showed no sex difference [2,17].

The above mention evidence supported the result from the present study which found non-significant differences in the various level of IP among male and female students. The current study finding in accord with studies from Saudi Arabia [14], Bahrain [18] and Thailand [19] which did not find gender-specific differences in the IP.

The study finding contradicts the results of previous studies from Pakistan [20] and Saudi Arabia [21] which showed that the females have high degree of severity of imposter phenomenon.

The disparity in results may be attributed to several reasons like social expectations, variations in study environments, cultural differences or curricula.

While to investigate the IP rates in regard to field of study in advancing grades as to basic studies in 1st 3 grades in comparison to clinical practice in the last three grades, many researches have explored this issue.

The results reveled non -significant differences in CIPS between the grades of medical college. similar results were also documented by studies from Bahrain [18] and Thailand [19] which found no significant differences regarding medical year and CIPS.

Moreover, the result points out that the rate of moderate IP was observed more among fourth grade students. In Iraq colleges of Medicine begin their major hospital practices in the fourth year, which means a transformation in both methodology and teaching and continuous assessments for undergraduate students with patients, and this may elucidate the lop-sided development of IP among fourth-year students, this fact is supported by previous studies among medical students in Iraq making them more susceptible to multiple psychological ailments as sleeping problem [22], irritable bowel syndrome associated with stress [23].

This result was also recognized by study among Peruvian faculties students which concluded that being a fourth-year student have a greater tendency towards IP, because of change in way of assessment and medical practice [24].

Conclusions and Recommendations: Imposter syndrome is a common problem among medical students, moderate Impostor characteristics was the predominated level of IP based on Clance IP scale. Therefore, the colleges of medicine need to adopt a screening and counselling programme to identify the students at more risk of developing IP.

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