



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF  
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.3993256>Available online at: <http://www.iajps.com>

Research Article

**IMPOSTER SYNDROME AMONG STUDENTS OF PRIVATE  
MEDICAL COLLEGES, LAHORE, PAKISTAN**<sup>1</sup>Dr. Aleena Rahman, <sup>2</sup>Dr Shahid Iqbal, <sup>3</sup>Dr Zartasha<sup>1</sup>Jinnah Hospital Lahore<sup>2</sup>Govt Muhammad Nawaz Sharif Teaching Hospital Yaki Gate Lahore<sup>3</sup>DHQ Hospital Rawalpindi**Article Received:** June 2020**Accepted:** July 2020**Published:** August 2020**Abstract:**

**Objective:** The aim of this study is to determine the total prevalence, year of study-wise as well as the gender-wise distribution of Impostor Syndrome amongst the undergraduate medical students at CMH Lahore Medical College, using the eight-question questionnaire of the Young Impostor Scale (YIS)

**Design:** The study was cross sectional and descriptive survey

**Place and duration of study:** conducted in a private medical college of Lahore, Pakistan in February 2018.

**Patients and methods:**

A total of 254 students from five years of MBBS and from both genders were enrolled in the study. Sampling technique was convenient non-probability type.

**Results:** A total of 79(30.4%) students were positive whilst 181(69.6%) were negative for IS (imposter syndrome). Class-wise distribution shows Imposter syndrome to be most prevalent in students of 2<sup>nd</sup> year (9.2%) out of the 5 MBBS classes. Also, imposters syndrome is more prevalent in the female (38.8%) population than male (25.35%) and this difference statistically significant ( $p=0.02$ ).

**Conclusion:** Introduce programs to help students and teachers identify this and help students overcome this issue should be initiated in all years of study.

**Key Words:** Prevalence, Imposter syndrome, medical students, Lahore, Pakistan.

**Corresponding author:**

**Dr. Aleena Rahman,**  
Jinnah Hospital Lahore

QR code



Please cite this article in press Aleena Rahman et al, **Imposter Syndrome Among Students Of Private Medical Colleges, Lahore, Pakistan.**, Indo Am. J. P. Sci, 2020; 07(08).

**INTRODUCTION:**

Coined for the first time by Dr. Pauline Clance, the impostor Phenomenon was described as an individual's experience of feeling inept and of having misled others about his or her own capabilities(1). These individuals are usually exceedingly successful but are unable to associate their achievements with their personal abilities but rather attribute them with luck(2). Clance pointed out that the fear of failure is their main driving force and they therefore, overextend themselves in any task assigned to them in order to reduce the risk of failure. This phenomenon greatly hinders the individual's personal well being while promoting feelings of self-doubt and apprehension. To remove these negative feelings, "Impostors" overwork themselves to prove that they are adept and capable. They feel extremely anxious when they are exposed to a demanding task as they live in constant fear of being exposed of their "phoniness" (3). They therefore also tend to be exceedingly critical of their efforts and accomplishments, finding it difficult to accept any form of praise for their achievements. Remaining fixated on their flaws as they are afraid of mortification, they will constantly focus on negative feedback as a reason for any mistake they might make. Lastly, these individuals also tend to overvalue others' intelligence and proficiency by comparing others' strengths with their own weaknesses (2).

The initial observations on the impostor phenomenon were clinical, being recorded from therapeutic sessions with highly accomplished females only as this group was considered susceptible due to their role in society and their family dynamics (1, 3). Succeeding researches however were conducted on non-clinical populations such as undergraduate students and found that the impostor phenomenon is equally prevalent amongst males as well, with some authors even reporting a greater prevalence in them than in females (2,3). Subsequent studies also went on to establish a positive correlation between impostorism and certain personality traits of an individual. In a study conducted by Chae et al. he found neuroticism and perfectionism amongst individuals to be strongly related with the development of the impostor phenomenon (3).

In a world with increasing levels of competitiveness amongst peers, medical students, by virtue of the medical profession, are increasingly susceptible to emotional strain and anxiety. They have to meet with increased expectations of the education system precipitating stress and psychiatric morbidity such as depression and GAD (General Anxiety Disorders) in them. These circumstances set off a phenomenon

amongst them known as Burnout. Burnout is defined as a state of prolonged stress leading to physical and emotional exhaustion, cynicism, detachment, feelings of inadequacy, and a lack of accomplishment. Due to the taxing nature of medical education, burnout seems to be experienced by virtually every medical student today and is becoming an increasingly known phenomenon over time (4). A striking resemblance can be noted amongst the characteristics experienced by an individual experiencing burnout and impostor syndrome (e.g. feeling of inadequacy). The syndrome has gained significant popularity during the last few years due to its association with burnout and its relevance today to people in several different fields and belonging to various cultures around the world (3, 5).

The growth in Knowledge over time has added to the stressors faced by medical students. According to a study conducted by Henning et al., higher levels of psychological distress were reported amongst undergraduate medical students as compared to the general population. The importance of the impostor phenomenon to medical students can be reflected by the fact that the impostor syndrome was considered to be an important indicator for the development of psychological stress amongst the students in this study. In another study conducted by Qureshi et al. on final year medical students in a Medical University in Lahore, Pakistan, 47.5%(68) of the total 143 students reported with Impostor Syndrome according to the Young Impostor Scale (YIS). Out of the sixty-eight, 53.5%(45) of them were female while only 38.9%(23) were males(5,6). This aim of this study is to determine the total prevalence, year of study-wise as well as the gender-wise distribution of Impostor Syndrome amongst the undergraduate medical students at CMH Lahore Medical College, using the eight-question questionnaire of the Young Impostor Scale (YIS).

**METHODOLOGY:**

The study was cross sectional and descriptive conducted in a private medical college of Lahore, Pakistan in February 2018. A total of 254 students from five years of MBBS and from both genders were enrolled in the study. Study setting was in a private medical college of Lahore, Pakistan. Sampling technique was convenient non-probability type. A verbal informed consent was taken and students were introduced and asked to fill the printed questionnaires anonymously.

Eight questions were used to do the dichotomous assessment of impostor syndrome, if present or absent. If a student answered five or more questions as "Yes", he/she was considered positive

for imposter syndrome. SPSS version 23 software (IBM Corporation, Armonk, NY, USA) was used for the Statistical analysis.

### RESULTS:

Out of 300 students 260(86.7%) completed the questionnaire. Out of which 162(62.3%) were males and 98(37.7%) were females. Students responding "Yes" to 5 or more on the Young Imposters scale were categorized as positive. A total of 79(30.4%) students were positive whilst

181(69.6%) were negative for IS(imposters syndrome). Class-wise distribution given in table 1, shows Imposter syndrome to be most prevalent in students of 2<sup>nd</sup> year (9.2% out of the 5 MBBS classes) (p=0.01)

Gender-wise details of responses are given in Table 2. According to Table 3 which gives frequency of Imposters syndrome amongst the genders, imposters syndrome is more prevalent in the female (38.8%) population than male (25.35%) (p=0.02)

**Table 1: Imposter Syndrome frequency distribution according to year of study**

| Class                | Imposters syndrome positive | Imposters syndrome Absent | Total |
|----------------------|-----------------------------|---------------------------|-------|
| 1 <sup>st</sup> year | 8(15.7%)                    | 41(84.3%)                 | 51    |
| 2 <sup>nd</sup> year | 24(44.4%)                   | 30(55.6%)                 | 54    |
| 3 <sup>rd</sup> year | 17(32.7%)                   | 35(67.3%)                 | 52    |
| 4 <sup>th</sup> year | 18(34.6%)                   | 34(65.4%)                 | 52    |
| 5 <sup>th</sup> year | 12(23.5%)                   | 39(76.5%)                 | 51    |

\*Pearson's chi square test is significant p=0.01

**Table 2: Gender-wise distribution of responses**

| No | Questions  | Answer Yes/no | Males (%)  | Female (%) |
|----|--|---------------|------------|------------|
| 1  | Do you secretly worry that others will find out that you are not as bright and capable as they think you are?    | Yes           | 53(54.6%)  | 44(45.4%)  |
|    |  | No            | 109(66.9%) | 54(33.1%)  |
| 2  | Do you sometimes shy away from challenges because of a nagging self-doubt  | yes           | 68(57.1%)  | 51(42.9%)  |
|    |  | No            | 94(66.7%)  | 47(33.3%)  |
| 3  | Do you tend to chalk your accomplishments up to being a fluke no big deal or the fact that people just like you? | yes           | 62(57.9%)  | 45(42.1%)  |
|    |  | No            | 100(65.4%) | 53(34.6%)  |
| 4  | Do you hate making a mistake, being less than fully prepared or not doing things perfectly?                      | Yes           | 98(60.9%)  | 63(39.4%)  |
|    |  | No            | 64(64.6%)  | 35(35.4%)  |
| 5  | Do you tend to feel crushed even by constructive criticism, seeing it as an evidence of your ineptness?          | Yes           | 47(52.2%)  | 43(47.8%)  |
|    |  | No            | 115(67.6%) | 55(32.4%)  |
| 6  | When you do succeed, do you think, "Phew" I fooled them this time but I may not be that lucky next time?         | Yes           | 56(62.2%)  | 34(37.6%)  |
|    |  | No            | 106(62.3%) | 98(37.7%)  |
| 7  | Do you believe that other people (students, colleagues, competitors) are smarter and more capable than you?      | Yes           | 81(53.6%)  | 70(46.4%)  |
|    |  | No            | 81(74.3%)  | 28(25.7%)  |
| 8  | Do you live in fear of being found out, discovered or unmasked?  | Yes           | 43(58.9%)  | 30(41.1%)  |
|    |  | No            | 119(63.6%) | 68(36.4%)  |

\*Pearsons chi square test is significant <0.05

| Table 3: Gender * Imposter Syndrome Cross tabulation |               |                 |                   |        |        |
|--|---------------|-----------------|-------------------|--------|--------|
|  |               |                 | Imposter Syndrome |        | Total  |
|  |               |                 | present           | absent |        |
| <b>Gender</b>  | <i>Male</i>   | Count           | 41                | 121    | 162    |
|  |               | % within Gender | 25.3%             | 74.7%  | 100.0% |
|  | <i>Female</i> | Count           | 38                | 60     | 98     |
|  |               | % within Gender | 38.8%             | 61.2%  | 100.0% |
| <b>Total</b>   |               | Count           | 79                | 181    | 260    |
|  |               | % within Gender | 30.4%             | 69.6%  | 100.0% |

Figure 1. Gender distribution of Imposter Syd

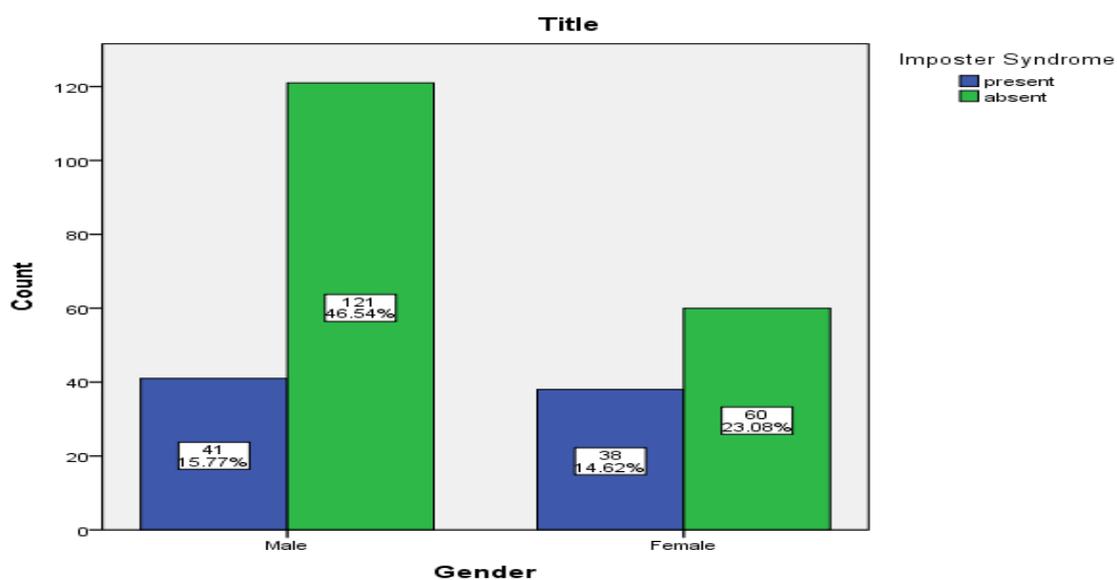


Figure 1 also shows a graphical distribution of IS distributed in genders.

**DISCUSSION:**

An individual suffering from imposter syndrome will consider his achievements as due to luck and is not confident in himself. Such individuals criticize themselves severely. Cognitive therapy as well as gestalt therapy is recommended for persons suffering from this condition. It has also been discovered that there is a relationship between imposter syndrome and low educational self-esteem ((7)). Low self-esteem which is evident as a significant portion of the male subjects reported 'yes'(62.2%) to "When you do succeed, do you think, "Phew" I fooled them this time but I may not be that lucky next time?"

Our study reports a higher incidence of Imposters syndrome in females(38.8% of all females) consistent with the findings reported by Qureshi et al, Ghorbanshirodi et al and Villwock et al. (5,7,8). Women have reported low self esteem than males (9). A study done in Austrian doctoral students has shown a decrease in research self efficacy by women. This has led to cause female doctoral students to suffer more from the IP, suggesting that the Imposters syndrome is a psychological barrier in women's university careers. According to PMDC statistics the number of female Doctors is almost equal to that of male doctors (10) hence the effects of this syndrome could be far reaching. Women are commonly perceived as less successful and less goal oriented than their male counter parts (11) and this could explain its higher prevalence in the female population as Imposters syndrome has been inversely linked to self-esteem (7). Introjections of societal sex-role stereotyping appear to contribute significantly to the development of the impostor phenomenon. Despite outstanding academic and professional accomplishments, women who experience the impostor phenomenon persist in believing that they are really not bright and have fooled anyone who thinks (1).

**CONCLUSION:**

Imposters' syndrome has been linked to social anxiety, self deprecation and depression all of which can further cause less females to further themselves in their career path.

Females reported 'yes' most frequently (47.8%) to "Do you tend to feel crushed even by constructive criticism, seeing it as an evidence of your ineptness?" indicating that they perceive any form of criticism as a sign of failure, which can hamper their professional growth severely. This finding is also consistent another study which reports Imposter syndrome may cause students to become socially withdrawn in order to hide their assumed fraudulence as they consider their success to be due to external factors rather than it being due to their

being naturally gifted. They resist and avoid any sort of encouragement or praise and may eventually seclude themselves entirely from the outside world (Cardenas, 2016)

Imposters syndrome has been linked to parental over protection score (12), of which females in an eastern society are more prone to be subject to. Males have reportedly less incidence of imposters syndrome(25.3% out of all males). It is reported male students suffer less burnout than female counter parts and have lesser perceived impact of stressors, leading to decreased rates of exhaustion (4). Imposters' syndrome is diagnosed most frequently after psychotherapies as a sufferer normally tries to hide this aspect. Group therapies are seen as highly effective (1). Hence advocacy and awareness are imperative for its treatment. Our study reports the highest rate of imposter's syndrome amongst students of 2<sup>nd</sup> year of MBBS, which differs from the findings reported by Villwock et al (8). Students of 2<sup>nd</sup> year MBBS having solely theoretical based curricula with limited clinical exposure might be feeling anxiety about the responsibilities they will have to shoulder in the coming years. (7)

A study done in Family medicine trainees also reported no significant relationship between year of study and Imposters syndrome(13). Thus programmes to help students and teachers identify this and help students overcome this issue should be initiated in all years of study. We also recommend a longitudinal survey following a cohort throughout their training process could elucidate whether "once an impostor, always an impostor" or whether impostor tendencies tend to resolve spontaneously with time and experience. Limitations of this study are that this was a convenient non probability sampling survey in only one private medical college and a small sample size. It would be more significant if done at multiple centres with a significantly large number of students. Significant associations may change with a larger sample. No demographic data were collected for non respondents, preventing us from assessing the degree to which selection bias may have occurred But this study is an effort to bring this important entity in light.

**REFERENCES:**

1. Clance PR, Imes SA. The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychother Theory, Res Pract* [Internet]. 1978;15(3):241-7. Available from: <http://doi.apa.org/getdoi.cfm?doi=10.1037/h0086006>
2. Hoang Q. The Impostor Phenomenon: Overcoming Internalized Barriers and

- Recognizing Achievements. Vermont Connect. 2015;34(February):42–51.
3. Sakulku J, Alexander J. The Impostor Phenomenon. 2011;73–92.
  4. Muzafar Y, Khan HH, Ashraf H, Hussain W, Sajid H, Tahir M, et al. Burnout and its Associated Factors in Medical Students of Lahore, Pakistan. Cureus [Internet]. 2015;7(11). Available from: <http://www.cureus.com/articles/3357-burnout-and-its-associated-factors-in-medical-students-of-lahore-pakistan>
  5. Qureshi MA, Taj J, Latif MZ, Rafique S, Ahmed R, Chaudhry MA. Imposter Syndrome among Pakistani Medical Students. Ann Apr – Jun. 2017;23(2):107–12.
  6. Henning K, Ey S, Shaw D. Perfectionism , the impostor phenomenon and psychological adjustment in medical , dental , nursing and pharmacy students. 1998;456–64.
  7. Ghorbanshirodi S. The Relationship between Self-Esteem and Emotional Intelligence with Imposter Syndrome among Medical Students of Guilan and Heratsi Universities. J Basic Appl Sci Res [Internet]. 2012;2(2):1793–802. Available from: <https://pdfs.semanticscholar.org/fd6b/13522044534f784ba69ae1d23a9b07103c9f.pdf>
  8. Villwock JA, Sobin LB, Koester LA, Harris TM. Impostor syndrome and burnout among American medical students: a pilot study. Int J Med Educ. 2016;7:364–9.
  9. Jöstl G, Bergsmann E, Lüftenegger M, Schober B, Spiel C. When will they blow my cover? The impostor phenomenon among austrian doctoral students. Zeitschrift fur Psychol / J Psychol. 2012;220(2):109–20.
  10. PMDC. Statistics total number of doctors/dental surgeons. 2017.
  11. Heilman ME, Wallen AS, Fuchs D, Tamkins MM. Penalties for success: Reactions to women who succeed at male gender-typed tasks. J Appl Psychol. 2004;89(3):416–27.
  12. Want J, Kleitman S. Imposter phenomenon and self-handicapping: Links with parenting styles and self-confidence. Pers Individ Dif. 2006;40(5):961–71.
  13. Oriel K, Plane MB, Mundt M. Family Medicine Residents and the Impostor Phenomenon. Fam Med. 2004;36(4):248–52.

**Imposter Syndrome Among Medical Students of Private Medical College,  
Lahore, Pakistan**

1. Gender      1. Male       2. Female
2. Class:      1. 1<sup>st</sup> year    2. 2<sup>nd</sup> year    3. 3<sup>rd</sup> year    4. 4<sup>th</sup> year       5. Final year
3. Do you secretly worry that other will find out that you are not as bright and capable as they think you are?      1. Yes       2. No
4. Do you sometimes shy away from challenges because of a nagging self – doubt?  
1. Yes       2. No
5. Do you tend to chalk your accomplishments up to being a fluke no big deal or the fact that people just like you?      1. Yes       2. No
6. Do you hate making a mistake, being less than fully prepared or not doing things perfectly?      1. Yes       2. No
7. Do you tend to feel crushed even by constructive criticism, seeing it as an evidence of your ineptness?      1. Yes       2. No
8. When you do succeed, do you think, “Phew” I fooled them this time but I may not be that lucky next time?      1. Yes       2. No
9. Do you believe that other people (students, colleagues, competitors) are smarter and more capable than you?      1. Yes       2. No
10. Do you live in fear of being found out, discovered or un-masked?      1. Yes       2. No