

## IMPOSTOR PHENOMENON: A CROSS-SECTIONAL STUDY OF STUDENTS AND HOUSE OFFICERS FROM DENTAL TEACHING INSTITUTES OF LAHORE

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### ABSTRACT

*Imposter phenomenon (IP) is characterized by chronic feelings of self-doubt and inadequacy in otherwise capable individuals. IP sufferers are unable to internalize their achievements and as a result suffer from depression, anxiety and low self-esteem. The current study was designed to find out the prevalence of IP among final year dental students and house officers and its association with gender predisposition in order to raise awareness and to improve teaching methodologies. A cross-sectional, self-reported, questionnaire-based study was conducted from December, 2018 to February, 2019 in various randomly selected dental teaching institutions of Lahore. Three hundred forty five individuals took part in this study. Out of which, 117 (33.9%) were males and 228 (66.1%) were females. 203 (58.8%) were students and 142(41.2%) were House Officers. According to Clance imposter phenomenon scoring, 51 (14.8%) individuals had few IP characteristics. 243 (70.4%) had frequent to moderate IP feelings. Whereas, 51 (14.8%) had intense IP experiences. A considerable proportion of individuals suffer from the Impostor Phenomenon. Regarding gender predisposition, males and females were found out to be affected differently. It is of paramount importance to address this phenomenon in order to improve the psychological well-being of dentists.*

**Keywords:** *impostor phenomenon, impostor syndrome, impostorism, dentists, teaching institute*

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### INTRODUCTION

Impostor Phenomenon (IP) – or Impostorism – can be best described as a psychological pattern characterized by chronic feelings of self-doubt and inadequacy, in otherwise competent and capable individuals<sup>1</sup>. Coined over 40 years ago by Clance and Imes<sup>2</sup>, this term was used to describe the internalized feelings of intellectual fraudulence and extreme fear of failure in high achieving women. These women, despite abundant external evidence of success and competence, attributed their accomplishments to external factors such as luck or some kind of error rather than their own personal capabilities. Initial studies were gender typical suggesting that it was a female specific trait. Subsequent research, on the contrary, indicated that men were equally, if not more,

affected by Impostorism<sup>3,4,5</sup>. Sufferers were documented to experience low self-esteem and increased levels of anxiety, frustration, depression<sup>6</sup> and poorer self-efficacy<sup>7</sup>. These apprehensions, fears and doubts often lead impostors to self-handicapping behaviors especially when faced by new tasks or challenges<sup>8</sup>. Under such circumstances, there are two coping strategies that impostors adapt – either go overboard with preparation (Perfectionism) or delay preparation as much as possible (Procrastination). It has been suggested that approximately 70% individuals from all walks of life experience IP feelings for at least a fraction of their careers<sup>9</sup>. Some researchers have also concluded that individuals experiencing this phenomenon are also more likely to regret their choice of career<sup>10</sup> and experience burnout<sup>11</sup> as well as drop out of their careers at an early stage<sup>12</sup> along with being more prone to medical errors<sup>13</sup>, absenteeism<sup>14</sup> and low job satisfaction<sup>15</sup>. Approximately one third of family medicine residents, according to one study<sup>16</sup>, believed themselves to be less intelligent and less capable than what others believed them to be. They underwent severe psychological distress and did not render themselves competent enough to continue

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practicing after graduation<sup>16</sup>. To date, there have been numerous researches such as these regarding the prevalence of the Impostor Phenomenon amongst students<sup>17,18,19</sup> and professionals of various fields<sup>20,21</sup>. However, there are a limited amount of studies that have solely focused on the Dental Healthcare Profession. Oral health professionals are an integral part of society as they typically have access to patients from various walks of life i.e. students, working professionals and individuals in academia<sup>22</sup>. In addition, they spend more time with their patients as compared to other clinicians and play a vital role in integrating education and preventive or intervention methods into practice<sup>22</sup>. Since IP feelings were found to impair personal development<sup>23</sup>, have profound negative effects on career development and career striving in students and on leadership motivation in working professionals<sup>24</sup> as well as inability to practice at the highest potential<sup>25</sup>, it is of crucial importance to ensure the psychological well-being of Dental Healthcare Professionals in order to improve the quality of life of patients.

Through this study, the researchers aim to investigate the prevalence of the Impostor Phenomenon among dental students and house officers and its association with gender predisposition in addition to raising awareness about the psychological impacts associated with this Phenomenon.

## MATERIALS AND METHODS

A cross sectional self-reported questionnaire-based study was conducted amongst dental students and house officers from various randomly selected dental teaching institutes of Lahore, Pakistan. A combination of Simple Random Probability Sampling and network sampling was used to identify study population in 3 dental teaching institutes: University College of Dentistry (University of Lahore), Lahore Medical and Dental College and Shareef Dental College. Data was collected during a period of nearly 2 months from December 2018 to February 2019.

The following formula was used to calculate a sample size of 385 participants :

$$N = (Z\text{-score})^2 * \text{StdDev}(1\text{-StdDev}) / (\text{margin of error})^2$$

Where N= necessary sample size

Permission was sought from Dr. Pauline Rose Clance in order to use the validated Clance IP Scale which was then distributed through a third party to maintain anonymity and an online survey was also created which was then shared through social media with colleagues and acquaintances from the randomly selected dental teaching institutes. These personal contacts were then requested to forward it to their

acquaintances. The introduction page clearly stated that identification of individual responses would not be possible, and that the information provided would be used solely for research purposes. The respondents had to answer questions regarding their apprehensions about success, evaluations, praise and self-perceptions about their competence, intelligence and capability. These questions identified the 6 dimensions that characterize the Impostor Phenomenon such as Fear of failure and Fear of success, The need to be the very best, Presence of self-handicapping behaviors, Superhuman characteristics and Inability to accept praise – of which two must be present in order to determine whether an individual has IP feelings. The data collected was coded and entered into SPSS v.20 to be analyzed by applying descriptive statistics in order to determine the frequencies and percentages of respondents suffering from the Impostor Phenomenon. The researchers were permitted to carry out their research work by The Ethical Review Board of The University College of Dentistry, University of Lahore. A pilot study was done with 20 participants currently employed at the University of Lahore. The participants filled the original version of the Clance IP Scale. Participants were also given a feedback form concerning the questionnaire. 11(55%) respondents felt that it was lengthy and time consuming. Hence, by identifying common themes in the Clance IP Scale, the questionnaire was modified to include 15 questions with a four-point scale.

Exclusion Criteria ; Everyone had an equal opportunity to participate. However, incomplete questionnaires were excluded from the data.

## RESULTS

The researchers handed out 350 questionnaires to final year students and house officers from the three selected institutions. There were a total of 345 responses. 302 out of the 350 questionnaires handed out were returned in addition to 43 responses to the online survey. Hence, the response rate was calculated to be 86.2%. 117 (33.9%) of the participants were males and 228 (66.1%) were females. 203 (58.8%) were students and 142 (41.2%) were House Officers. A score of 30 and below indicated few impostor characteristics. A score of 31 to 45 demonstrated moderate to frequent IP feelings. A score between 46 and 60 meant that the participant had intense IP experiences. A higher score signified the profound effect The Impostor Phenomenon had on a person's life. The results indicated that 51(14.8%) individuals had few IP characteristics. 243 (70.4%) exhibited frequent to moderate IP feelings. Whereas, 51(14.8%) had intense IP experiences. Regarding gender predisposition, females were slightly more affected by IP than their male counterparts.

It would be interesting to note that although impos-

TABLE 1: THE FREQUENCY AND INTENSITY OF IP FEELINGS IN STUDENTS AND HOUSE OFFICERS

| Designation   |       |          | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------------|-------|----------|-----------|---------|---------------|--------------------|
| student       | Valid | few      | 23        | 11.3    | 11.3          | 11.3               |
|               |       | moderate | 153       | 75.4    | 75.4          | 86.7               |
|               |       | intense  | 27        | 13.3    | 13.3          | 100.0              |
|               |       | Total    | 203       | 100.0   | 100.0         |                    |
| house officer | Valid | few      | 28        | 19.7    | 19.7          | 19.7               |
|               |       | moderate | 90        | 63.4    | 63.4          | 83.1               |
|               |       | intense  | 24        | 16.9    | 16.9          | 100.0              |
|               |       | Total    | 142       | 100.0   | 100.0         |                    |

TABLE 1: THE FREQUENCY AND INTENSITY OF IP FEELINGS IN STUDENTS AND HOUSE OFFICERS

| Gender |       |          | Frequency | Percent | Valid Percent | Cumulative Percent |
|--------|-------|----------|-----------|---------|---------------|--------------------|
| male   | Valid | few      | 19        | 16.2    | 16.2          | 16.2               |
|        |       | moderate | 84        | 71.8    | 71.8          | 88.0               |
|        |       | intense  | 14        | 12.0    | 12.0          | 100.0              |
|        |       | Total    | 117       | 100.0   | 100.0         |                    |
| female | Valid | few      | 32        | 14.0    | 14.0          | 14.0               |
|        |       | moderate | 159       | 69.7    | 69.7          | 83.8               |
|        |       | intense  | 37        | 16.2    | 16.2          | 100.0              |
|        |       | Total    | 228       | 100.0   | 100.0         |                    |

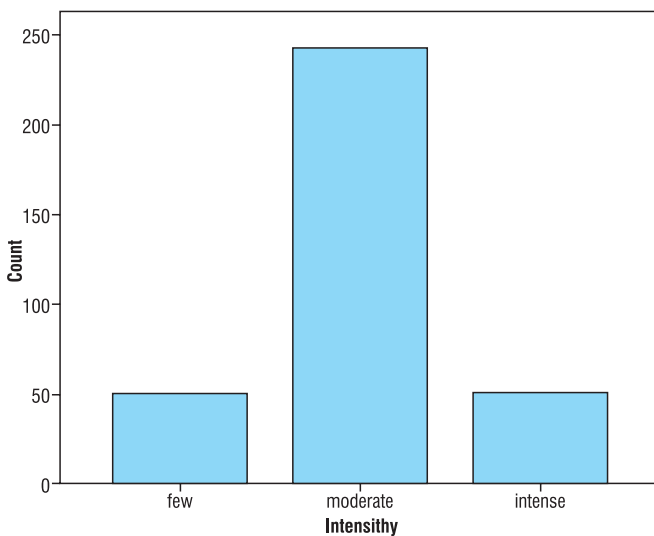


Fig 1: The Frequency and intensity of IP amongst participants.

tor feelings were more common in students, house-officers had a higher percentage of individuals experiencing IP either intensely or having few IP characteristics.

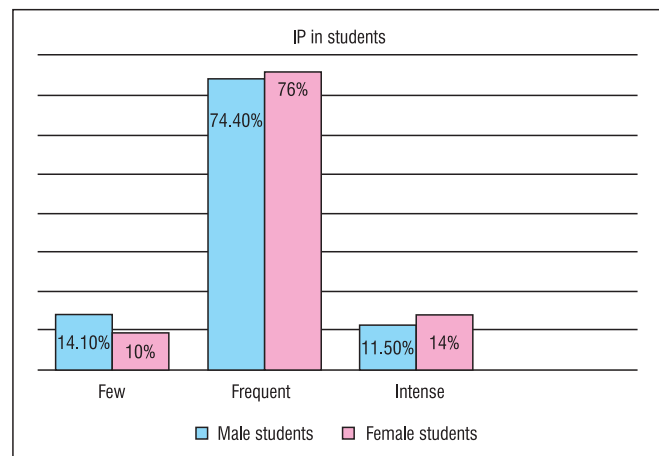


Fig 2: Demonstrates the level of IP intensity in male and female students.

51(14.8%) individuals had few IP characteristics. 243 (70.4%) exhibited frequent to moderate IP feelings. Whereas, 51(14.8%) had intense IP experiences

**DISCUSSION**

Impostor Phenomenon has been associated with

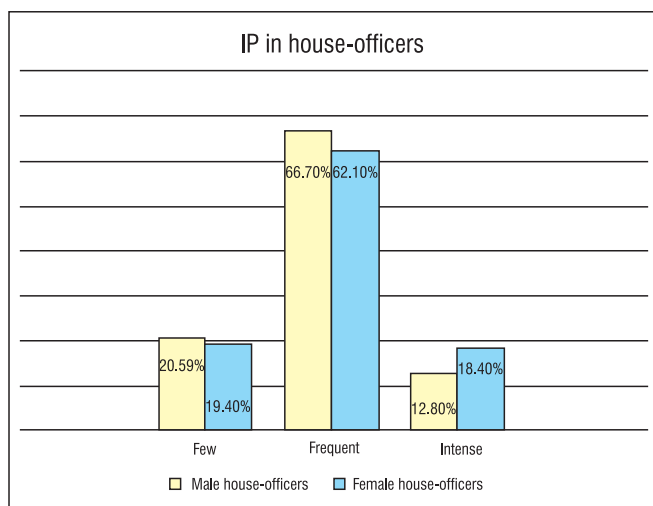


Fig 3: Indicates the difference in IP intensity among male and female house-officers

stress and burnout along with a lack of will to strive for better career opportunities due to the fear of failing in high positions and to risk being exposed as frauds. And since dentistry is an ever-evolving profession with an ever-increasing employability competitiveness, it is not feasible to ignore the reduction in motivation of students and young professionals to pursue career goals. The aim of this study was to determine the frequency of IP amongst students and house officers in Lahore and to explore the association between gender predisposition & IP along with raising awareness about the psychological backdrop that comes with this phenomenon. Overall, the results of this study indicate that females were affected at a slightly higher rate than males. This finding supports the original assumption by Clance and Imes that the Impostor Phenomenon is more common and more pronounced in females. Moreover, students were found to be more affected by IP than the house officers. During their year of internship, house-officers become more experienced and familiar with their clinical skills and feel far more comfortable in their workplace. This particular finding may support the hypothesis that Impostor feelings decrease with experience as an individual becomes more and more acquainted with his/her surroundings<sup>26-28</sup>

The findings of this research are comparable to Henning's study on dental, nursing and pharmacy students indicating that 27.5% individuals exhibited imposter feelings<sup>29</sup> as opposed to the 85.2% participants in this study. Another pilot study concerning students of Jefferson Medical College indicated that a quarter of male students and almost half of female students were experiencing the Impostor Phenomenon<sup>30</sup>. However a study conducted in Azra Naheed Medical College in Lahore suggested that more women underwent IP feelings as compared to men with 47.5% of the participants

being sufferers of IP<sup>31</sup>. Similarly a study was carried out in 2018 at Nishtar Medical University in Multan showed that a staggering 97% respondents were experiencing the Impostor Phenomenon and that females were affected by the Impostor Phenomenon at a higher rate than males<sup>32</sup>. The reason for such a high prevalence in this study might be due to various reasons – the participants were final year BDS students and House Officers, both at the verge of entering the actual workforce, the outrageous dental advancements nowadays and an increasingly competitive dental market, plus a mismatch of expectations between administrations, and students and house-officers.

### Recommendations

A higher workload and an increasingly competitive environment can impair personal growth and may lead to IP-like tendencies. In order to combat this, adequate training must be provided to the faculty and staff to identify and aid sufferers of IP. Peer support groups and mentorship programs must be organized in order to help individuals acknowledge their feelings and to encourage setting realistic expectations for themselves as well as being taught practice management skills and effective methods to cope with stress.

### Limitations

This was a self-reported questionnaire which is often the cause of common method bias. The researchers faced constraints of time, a lack of resources and as a result the sample size is smaller than the one calculated using Cochran's formula. Significant associations may differ with an increased sample size. Moreover, the researchers<sup>24-27</sup> referenced in this study were of a smaller sample size thus making it difficult to generalize. In addition, the findings were completely subjective.

### CONCLUSION

The Impostor Phenomenon has been found to be quite prevalent amongst students and professionals of various fields. However, limited literature is available regarding its occurrence exclusively in dental students and professionals. It is important to address this phenomenon in order to ensure the psychological well-being of future and upcoming dentists and as a result, improve the quality of care being provided to patients.

### REFERENCES

- 1 Parkman, A. The Impostor Phenomenon in Higher Education: Incidence and Impact. *Journal of Higher Education Theory and Practice*. 2016; 16(1) :51-60.
- 2 Mak KKL, Kleitman S, Abbott MJ. Impostor Phenomenon Measurement Scales: A Systematic Review. *Frontiers in Psychology*. 2019; 10: 671
- 3 Lebowitz S. Men are suffering from a psychological phenomenon

- that can undermine their success, but they're too ashamed to talk about it. Available at: <https://www.businessinsider.in/Men-are-suffering-from-a-psychological-phenomenon-that-can-undermine-their-success-but-theyre-too-ashamed-to-talk-about-it/articleshow/50553505.cms>. Accessed March 2019.
- 4 Stillman J. Impostor Syndrome Affects Men and Women Differently. Available at : <https://www.curiosity.com/topic/impostor-syndrome-affects-men-and-women-differently-curiosity/>. Accessed March 2019
  - 5 Cokley K, Awad G, Smith L, Jackson S. The roles of gender stigma consciousness, impostor phenomenon and academic self-concept in the academic outcomes of women and men. *Sex Roles*. 2015 ;73(9-10):414-26.
  - 6 Aubeeluck A, Stacey G. Do graduate entry nursing student's experience 'Impostor Phenomenon'? : An issue for debate. *Nurse Education in Practice*. 2016; 19: 104-106
  - 7 McDowell WC, Grubb III WL, Geho PR. The impact of self-efficacy and perceived organizational support on the impostor phenomenon. *American Journal of Management*. 2015;15(3):23
  - 8 Fraenza, C.B. (2016), "The role of social influence in anxiety and the impostor phenomenon", *Online Learning*. 2016; 20(2): 230-243.
  - 9 Gravois J. You're Not Fooling Anyone. Available at: <http://chronicle.com/article/Youre-Not-Fooling-Anyone/28069/>. Accessed March 2019
  - 10 Tian L, Pu J, Liu Y, Zhong X, Gui S, Song X et al. Relationship between burnout and career choice regret among Chinese neurology postgraduates. *BMC Med Educ*. 2019 ;19(1):162
  - 11 Hutchins HM, Penney LM, Sublett LW. What imposters risk at work: Exploring impostor phenomenon, stress coping, and job outcomes. *Human Resource Development Quarterly*. 2018 ;29(1):31-48.
  - 12 Jöstl, G., Bergsmann, E., Lüftenegger M et al. When will they blow my cover? *Z. Psychol* 2012; 220: 109–120.
  - 13 West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA*. 2006;296(9):1071–1078. [PubMed] [Google Scholar] DOI: 10.1001/jama.296.9.1071
  - 14 Sanford AA, Ross EM, Blake SJ, Cambiano RL. Finding Courage and Confirmation: Resisting Impostor Feelings through Relationships with Mentors, Romantic Partners, and Other Women in Leadership. *Advancing Women in Leadership Journal*. 2015; 35: 31-40
  - 15 Brauer, K. & Proyer, R.T. *Curr Psychol* (2019). <https://doi.org/10.1007/s12144-019-00262-5>
  - 16 Oriol K., Plane M. B and Mundt M. Family medicine residents and the impostor phenomenon. *Fam.Med* 2004; 36:248–252.
  - 17 Peteet B.J, Montgomery L. Predictors of Impostor Phenomenon among Talented Ethnic Minority Undergraduate Students. *The Journal of Negro Education*, 2015 ;84(2): 175-186.
  - 18 Kananifar N, Seghatoleslam T, Atashpour SH, The relationships between impostor phenomenon and mental health in Isfahan Universities students. *International Medical Journal*. 2015 ;22(3):144-6.
  - 19 Lige QM, Peteet BJ, Brown CM. Racial identity, self-esteem, and the impostor phenomenon among African American college students. *Journal of Black Psychology*. 2017 ;43(4):345-57.
  - 20 Trefts S. The Impostor Phenomenon in Female, First-Generation STEM Majors (Doctoral dissertation, California Lutheran University). 2019.
  - 21 Rohrmann S, Bechtoldt M.N, Leonhardt M, Validation of the Impostor Phenomenon among Managers, *Front Psychol*. 2016; 7: 821
  - 22 FDI/WHO (2005) Tobacco or oral health: an advocacy guide for oral health professionals. Edited by Beaglehole RH and Benjian HM; FDI World Dental Federation, Ferney Voltaire, France / World Dental Press, Lowestoft, UK.
  - 23 Kulkarni S, Dagli N, Duraiswamy P, Desai H, Vyas H, Baroudi K. Stress and professional burnout among newly graduated dentists. *J Int Soc Prev Community Dent*. 2016;6(6):535–41.
  - 24 Neureiter M, Traut-Mattausch E, An Inner Barrier to Career Development: Preconditions of the Impostor Phenomenon and Consequences for Career Development. *Front Psychol*. 2016; 7: 48.
  - 25 Haney TS, Birkholz L, Rutledge C. A Workshop for Addressing the Impact of the Impostor Syndrome on Clinical Nurse Specialists. *Clin Nurse Spec*. 2018 ;32(4):189-94.
  - 26 Cisco J, Using academic skill set interventions to reduce impostor phenomenon feelings in postgraduate students. *Journal of Further and Higher Education*, 2019. DOI: 10.1080/0309877X.2018.1564023
  - 27 Leach PK, Nygaard RM, Chipman JG, Brunsvold ME, Marek AP. Impostor Phenomenon and Burnout in General Surgeons and General Surgery Residents. *J Surg Educ*. 2019 ;76(1):99-106.
  - 28 Barr-Walker J, Bass MB, Werner DA, Kellermeyer L. Measuring impostor phenomenon among health sciences librarians. *J Med Libr Assoc*. 2019 Jul;107(3):323-32.
  - 29 Henning K, Ey S, Shaw D, Perfectionism, the impostor phenomenon and psychological adjustment in medical, dental, nursing and pharmacy students. *Med Educ*. 1998;32(5):456-64
  - 30 Villwock JA, Sobin LB, Koester LA, Harris TM. Impostor syndrome and burnout among American medical students: a pilot study. *International Journal of Medical Education*, 2016; 7: 364.
  - 31 Qureshi, M., Taj, J., Latif, M et al. Impostor Syndrome among Pakistani Medical Students. *Annals of King Edward Medical University* 2017; 23(2):106-10.
  - 32 Maqsood H, Shakeel H.A, Hussain H, et al. The descriptive study of impostor syndrome in medical students. *IJRMS*. 2018;6(10): 3431-3434.

### CONTRIBUTIONS BY AUTHORS

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| <p><b>1 Muhammad Umair Dastgir Bhatti:</b></p> <p><b>2 Iqra Ahmed:</b></p> | <p>Review and Formatting of the article as whole, Data analysis, Materials and Methods, Results write up. Introduction, Discussion writing, Data Collection and Referencing.</p> |
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