

# ASSOCIATION BETWEEN GLOSSOPHOBIA AND PERSONALITY TRAIT AMONG MEDICAL STUDENTS: A CROSS-SECTIONAL STUDY

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## ABSTRACT

**Background:** Glossophobia is the fear of public speaking this is common in medical student's in all fields. Personality trait is reflecting people's characteristics pattern of thought feelings behaviors. This study investigate the association between glossophobia and personality trait among medical students

**Objective:** To identify the prevalence of glossophobia among medical students by using PRPSA Questionnaire.

**Methodology:** This cross-sectional study is limited to only medical students in Karachi. In which different medical universities were included, total 349 students were asked to fill forms. In which we were use two questionnaire PRPSA and EPQRS. The PRPSA questionnaire contain 34 questions which evaluate condition and individuals were requested to mark one of the given option. (1) Strongly disagree (2) disagree (3) neutral (4) agree (5) strongly agree. Which are meant to evaluate their speaking anxiety and the EPQRS questionnaire contain 48 questions which assess their dimensions of personality. (1) Extraversion (2) neuroticism (3) psychoticism (4) openness (5) conscientious. These dimensions further categories in three levels low, moderate, high.

**Results:** A total of 349 students, 82.5 % (288) females and 17.5 % (61) males took part in the study. The majority of participant, 61.9% (216) fell within the 18 to 21 yrs age group. While, only 0.3% (1) participant was of age 28 to 30 yrs. Questionnaire was filled by medical students belongs to different medical fields. We applied Cohen's Kappa statistics and the findings indicate that Glossophobia does not significantly correlate with any personality trait factors. Glossophobia correlation with neuroticism shows a kappa value of 0.016 (SE=0.029, p=0.558) indicating no agreement.

**Conclusion:** However, The results highlights that fear of public speaking is more prevalent in female medical students as compared to male medical students and the study shows that more participants exhibit high level of neuroticism.

**Key Words:** Glossophobia, Personality Trait, Neuroticism, Psychoticism, openness

## INTRODUCTION

People claim that public speaking would be difficult in either a mild severe sense (89%). 75% of people have some level of public speaking anxiety, 89% of people who reportedly suffer from social anxiety also struggle with a fear of public speaking. About 15 million

people struggle with Glossophobia every day in the US. Only 8% of people with Glossophobia seek professional assistance, despite its negative effects on their careers and wages. About 37% of men and 44% of women suffer from public speaking anxiety.<sup>1</sup> 30% to 40% of Americans suffer from

Communication Apprehension that affects their ability and willingness to speak publically.<sup>2</sup> At a global level, anxiety is seen as a permanent threat. At a more local or situational level, anxiety can be experienced in response to a particular situation or act, for example, in giving a public speech.<sup>3</sup>

Glossophobia (in Greek glosso means tongue and phobos means fear or dread) is the anxiety of speaking in public. It, affecting approximately 75% of the population, accounts for one of the most pervasive world dread. Public speaking fear is considered a type of societal dread that causes severe escaping of speaking in front of others because of fear of awkwardness or humiliation.<sup>4</sup>

People with social anxiety have irrational beliefs and think of themselves being incompetent when in reality they might be competent, this pattern of thinking affects a person's performance and reduces his chance of success in all domains of life including academics. People having social anxiety perceive themselves as a center of negative attention and their mental filtering amplifies the thinking that social interactions will lead to negative results.<sup>5</sup> Glossophobia is a type of social phobia having great social importance, people with public speaking fear face great difficulty in pursuing their career goals and promotion, this may cause frustration, depression and distress in their personality.<sup>6</sup>

Personality traits effect globally  
(personality types) Extroverted:  
49.3%Introverted 50.7% Sensing:73.3  
Intuition:26.7

Thinking:40.2%Feeling:59.8%Judging:54.1%  
Perceiving: 45.9% .ISFJ, the Defender most common personality type. Makes up 13.8% of the US population. The rarest personality type is ESFJ. A person with this personality type is caring ESFJ personality type makes up for 12% of the US population.<sup>7</sup> The prevalence of anxiety among medical students has been reported from different regions and countries. In Pakistan, a high prevalence of anxiety (47.7%)was found among medical students. A mild, moderate, and severe anxiety symptoms were present in 6.5%, 13.6% and27.6% of the students, respectively.<sup>8</sup>

Personality Traits: Several personality traits may influence an individual's susceptibility to

glossophobia: Neuroticism: Individuals high in neuroticism tend to experience higher levels of anxiety and emotional distress, making them more prone to fears such as public speaking anxiety.<sup>9</sup> Perfectionism: Perfectionistic tendencies, characterized by a strong desire to avoid mistakes and meet high standards, can exacerbate anxiety related to public speaking, as individuals may fear judgment or criticism from others.<sup>9</sup> Introversion: Introverted individuals may find public speaking more challenging due to their preference for solitude and reflection rather than social interaction.<sup>10</sup> Low Self-Esteem: Low self-esteem may contribute to feelings of inadequacy or self-doubt, amplifying fears of public speaking and undermining confidence in one's ability to communicate effectively.<sup>11</sup> Medical students are often required to engage in public speaking activities as part of their training, including presentations, case discussions, and interactions with patients and colleagues. The demanding nature of medical education, coupled with the high stakes involved in patient care, can heighten the pressure and anxiety associated with public speaking for some students. Implications for Medical Practice: Effective communication skills are essential for medical professionals, enabling them to build rapport with patients, convey complex information clearly, and collaborate with multidisciplinary teams. Medical Students who experience glossophobia may face challenges in developing these crucial skills, potentially impacting their performance in clinical settings and their ability to provide optimal patient care. Interventions and Support: Recognizing the association between glossophobia and personality traits among medical students, educational institutions may implement interventions to support students in overcoming public speaking anxiety and developing effective communication skills. These interventions may include communication workshops, public speaking training programs, cognitive-behavioral therapy, and mentorship opportunities with experienced clinicians. However, findings on the relationships between SA and agreeableness, conscientiousness, and openness to experience are mixed. In regard to facet-level personality traits, SA is negatively correlated with trust (a facet of agreeableness)

and self-efficacy (a facet of conscientiousness).<sup>12</sup> Personality traits were also proven to be essential for medical students in choosing the most suitable specialty based on a proper assessment and fair acknowledgement of their self strengths and limitations. This takes into account that professional satisfaction influences not only the doctor's quality of life and performance, but also the patient's outcome. Thus, medical educators should also focus their attention on guiding undergraduates in making the best choice based on their personality and personal interests.<sup>13</sup>

The association between glossophobia and personality traits among medical students is a complex and multifaceted phenomenon that warrants further investigation. By exploring the prevalence of glossophobia within this population and examining its relationship with personality traits, researchers and educators can develop targeted interventions and support strategies to help medical students overcome public speaking anxiety and thrive in their academic and professional endeavors. By promoting effective communication skills and addressing public speaking anxiety early in medical education, we can ensure that future healthcare professionals are well-equipped to communicate confidently and compassionately with patients, colleagues, and other stakeholders in the healthcare system.

Addressing glossophobia among medical students requires a holistic understanding of the interplay between personality traits, cultural factors, and individual experiences. By recognizing and addressing these factors, educators, clinicians, and medical institutions can better support students in developing the confidence and skills needed to succeed in public speaking and communication throughout their medical career.

## METHODOLOGY

This cross sectional study is limited to only medical students in Karachi. In which different medical universities were included, total 349 students were asked to fill forms. A non probability convenience sampling was used for data collection.

The Inclusion criteria were male and female medical students of age between 18-30 yrs and willing to participate in our study. The

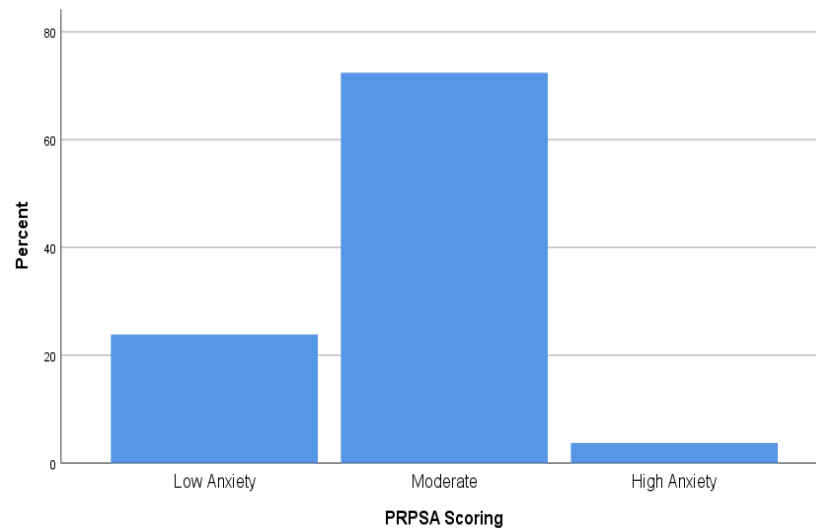
exclusion criteria include the participant with any diagnosed psychological condition i.e anxiety, depression and participant with any speech and language disorder i.e aphasia. Medical students who were on academic leave was also excluded. We were used two questionnaire PRPSA and EPQRS. The PRPSA questionnaire contain 34 questions which evaluate condition and individuals were requested to mark one of the given option. (1) Strongly disagree (2) disagree (3) neutral (4) agree (5) strongly agree. Which are meant to evaluate their speaking anxiety and the EPQRS questionnaire contain 48 questions which assess their dimensions of personality. (1) Extraversion (2) neuroticism (3) psychoticism (4) openness (5) conscientious. These dimensions further categories in three levels low, moderate, high. After collection data were analyzed through SPSS version 22

## RESULT

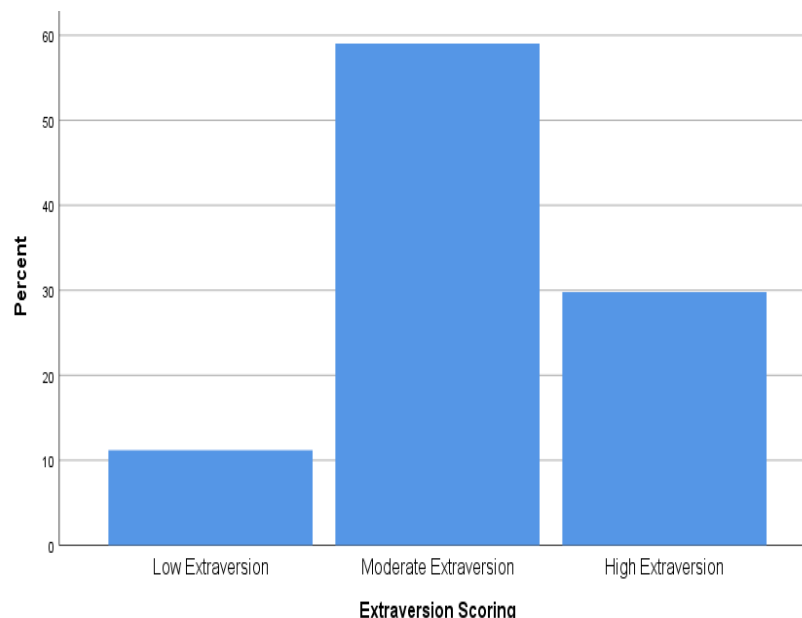
Out of 349 students, 82.5 % (288) females and 17.5 % (61) males (table 1) out of 349 participant, 61.9% (216) was age of 18 to 21 yrs, 34.7% (121) was of age 22 to 24 yrs, 3.2% (11) was of age 25 to 27 yrs and 0.3% (1) was of age 28 to 30 yrs. (table 2) Questionnaire was filled by medical students belongs to different medical fields among which 56.4% (97) were DPT students, 21.2% (74) were MBBS, 14% (49) were pharmacy and 8.3% (29) were nursing students. (table 3) Out of which 28.7% (100) were from first year, 27.2 % (95) were from second year, 8.3% (29) were from third year, 18.9% (66) were from fourth year and 16.9% (59) were from fifth year. (table 4) The frequency distribution of public speaking anxiety, According to PRPSA questionnaire is 23.8% (83) exhibit low, 72.2% (252) exhibit moderate while 3.7% (13) exhibit high public speaking anxiety. (Figure I) The EPQR questionnaire of personality traits consists of four coefficients extroversion, neuroticism, psychoticism and lie scale. In extroversion out of 349 participant 11.2% (39) exhibit low, 59% (206) exhibit moderate while 29.8% (104) exhibit high extroversion. (Figure II) Out of 349 participants 10.9% (38) exhibit low, 42.4% (148) exhibit moderate while 46.4% (162) exhibit high neuroticism. (Figure III) Out of 349 participants. In psychoticism out of

349 participant 2.3% (8) exhibit low, 75.6%(264) exhibit moderate while 21.8% (76) exhibit high psychoticism (Figure IV ) Out of

349 participants , 12.9% (45) exhibit low, 70.5%(246) exhibit moderate and 16.6%(58) exhibit high lie scoring ( Figure V)



**Figure I: Level of Personal report of Public Speaking Anxiety**



**Figure II: Frequency distribution of Eyesnck Personality trait Questionnaire Dimension Extroversion**

## DISCUSSION

Glossophobia (Public speaking fear) is considered a type of societal dread that causes severe escaping of speaking in front of others because of fear of awkwardness or humiliation. People with social anxiety have irrational beliefs and think of themselves being incompetent when in reality they might be competent, this pattern of thinking affects a person's performance and reduces his chance of success

in all domains of life including academics. People having social anxiety perceive themselves as a center of negative attention and their mental filtering amplifies the thinking that social interactions will lead to negative results . While, Personality is known as the blend of behavior, emotion, motivation, and thought patterns that characterize an individual. Researchers have suggested five measurements of personality, which are extroversion,

conscientiousness, agreeableness, neuroticism and openness to experience (i) Extraversion encompasses action potentials, socialization, self-confidence, and higher levels of emotional expressiveness. People superior in extraversion are sociable, and prefer to build independency in social settings. This trait helps them to feel delighted and motivated about getting more social. (ii) Conscientiousness involves increased rates of attentiveness, good emotional regulation, and goal-driven behavior. Highly conscientious people are more established. They plan forwards, think on how one's actions affect others, and are always focused on their targets (iii) agreeableness includes qualities such as honesty, selflessness, empathy, love, and other positive social behaviors. (iv) Neuroticism is, a trait of sorrow, mood swings and emotional instability (v) openness largely comprises creativity and imagination. People with a significant degree of this trait enjoy a broad variety of interests. They are intellectually curious about their surroundings, always feel anxious to understand new things.

Personality traits mainly affect medical students in two aspects: life and work. Life performance, health outcomes, and satisfaction constitute parts of life that personality trait affect. Personality traits can affect health outcomes via health risk perception or indirectly affect health outcomes through life performance (e.g., physical activity, sleep, diet, smoking, and drinking). The differences in eating habits were also considered to be related to personality traits. Personality traits were proven to be essential for medical students in choosing the most suitable specialty based on a proper assessment and fair acknowledgement of their self strength and limitations. This takes into account that professional satisfaction influences not only the doctor's quality of life and performance, but also the patient's outcome.

This study was conducted to find association between glossophobia and personality trait among medical students. Our study provokes the idea about the prevalence of there association among medical students. The association between glossophobia and personality traits among medical students is a complex phenomenon that warrants further

investigation. To find the prevalence of glossophobia we use Personal report of public speaking anxiety (PRPSA) questionnaire and to assess the effect of personality trait we use Eysenck personality questionnaire (EPQRS) questionnaire that include four factors extraversion, psychoticism, neuroticism and lie scoring. (i) psychoticism defined as cold, impersonal, lacking in sympathy, emotionality, empathy and insight combined with a tendency of paranoid ideas against oneself; (ii) extraversion characterized by enjoyment of social interactions and in novel activities and a tendency towards impulsive behavior, and (iii) neuroticism defined by feelings of anxiety, depressed mood and guilt.

The study include , 58 male participant and 54 were female. Which means male students are more prone to have public speaking anxiety as compare to female.<sup>14</sup> The result of the study showed that the level of public speaking fear was equal among males and females. A relatively equal number of males (n=65) and females (n=96) took part in the study, although females did make up a higher percentage of the students having public speaking anxiety. Females may have been more worried about their grades While, males may have had other priorities.<sup>2</sup> The study include total of 60 participants from the Faculty of Social Sciences and Liberal Arts (FoSSLA) willingly participated in this study; all of them were Chinese Malaysian students who were currently studying in the target private university.<sup>15</sup> In the study total number of the students in this EEC class was 65 and all of them were taken in as respondents in the survey research.<sup>16</sup> According to the study involved 129 female students and 70 males there is no significant difference in regards to gender on speaking anxiety level. However, findings in this study shows that there is difference on speaking anxiety level shown by students.<sup>17</sup> The Study include sample size (n=145) which consists of 77 male and 68 female students.<sup>18</sup> The study include 400 participants among which 200 are male participants while 200 are female participants.<sup>19</sup> While in this study male and female both participants were included among which 288 are female while 61 are male students suggesting that female suffer more from public speaking anxiety as compare to

male students

The study include participant of age between 21-40 yrs among which 70% of the respondents were ages 21-30, and only 30% of the respondents were from 31-40 years old.<sup>20</sup> The study include undergraduate students with average an age of 20 years.<sup>19</sup> In the study there is a wide range of students participated of age 18-34yrs, among which 67.9% were age 18yrs .7.3% were 19 yrs, 6.25 were of age 20 yrs and 0.6% were of age 34 yrs.<sup>2</sup> The study include participants of age between 20 yrs-60yrs , the study found that 20 of the participants, constituting the majority of 43.5%, were aged between 20 and 25 years. This means that the class is quite youthful. Ten, constituting 21.7% of the participants were aged between 26 and 30 years, while those who fell within the 36-40; 46-50; 56-60 year brackets constituted 15.2%, 13% and 6.5% respectively.<sup>21</sup> While, in this study the participants of age between 18 -30 yrs was included among which 61.9% are of age 18-21 yrs, 34.7% are of age 22-24 yrs ,3.2% are of 25-27 yrs, 0.3% are of 28-30 yrs.

In study the participants include were 7.6% from first year, 20.8% from second year, 43.8% from third year, 8.7% from fourth year and 19.1% from fifth year .<sup>22</sup> The study include medical postgraduates students among which 36.6% belongs to first year of post graduation ,34.4% belongs to second year and 29% belongs to third year of post graduation.<sup>23</sup> The study included students, from first year 45.86%, second year 52.58%, third year 47.14%, fourth year 28.75%, and 45.10% were of final year.<sup>8</sup> The students participated in the study were of second year, third year and fourth year . The students were in second year 34% -, third-33.5% and fourth-year 32.5% students, respectively.<sup>24</sup> While, In this study students from first year to final year were participated, Out of which 28.7% were from first year, 27.2 % were from second year, 8.3%) were from third year, 18.9% were from fourth year and 16.9% were from final year.

The study exhibit 30-69 = mild 70-110 = moderate; 111-150 = high.<sup>24</sup> The study involve 288 participant ,among which the participants that exhibit Low anxiety level are (41.3%), Moderate (54.9%) and High level of anxiety in (3.8%).<sup>22</sup> Another study include Out of the total 63 respondents 33.3% reported that they

have moderately high fear of public speaking, 28.6% have moderate fear, 27% have moderately low fear, and 6.3% have high fear while 4.8% have low fear of public speaking.<sup>25</sup> In the study, the student's speaking anxiety level, presents the percentages and frequencies of low, moderate and high speaking anxiety levels that were calculated. This analysis found that 49.1% experienced a high speaking anxiety level, 42.2% experienced a moderate speaking anxiety level, and 8.7% experienced a low speaking anxiety level.<sup>24</sup> In the study includes 65 participants among which (37%) exhibit low anxiety, (12.3%) exhibit moderate while, (12.3%) exhibit high level of public speaking anxiety.<sup>16</sup> PRSPA Questionnaire given to the participants and ask them to fill these questionnaire so, we came to know the level of anxiety among students, According to this study 23.8% exhibit low, 72.2% exhibit moderate while 3.7% exhibit high public speaking anxiety.

The study has shown the relation of big five personality trait factor (extroversion, neuroticism, psychoticism) with public speaking anxiety. In the study 23% exhibit low .While 77%) exhibit high level.<sup>27</sup> In the study out of 636 participants 229 participants belongs to extraversion among which 35.61% exhibit moderate level while 30.76% exhibit high level.<sup>28</sup> In the study 4.4% participants belongs to extroversion.<sup>29</sup> While, In this study ,the extroversion somehow associate with public speaking anxiety. In extroversion out of 349 participant 11.2% exhibit low, 59% exhibit moderate while 29.8% exhibit high extroversion.

The study show that the (92%)exhibit low while, (8%) exhibit high level. <sup>27</sup>In the study out of 636 participants 178 participants belongs to psychoticism among which 30.13% exhibit moderate level while 23.07% exhibit high level.<sup>28</sup> In the study 2.3% participants belong to psychoticism.<sup>29</sup> This study shows that the Psychoticism also has a mixed relation with speaking, as a moderate level of psychoticism found among students. In psychoticism out of 349 participant 2.3% exhibit low, 75.6% exhibit moderate while 21.8% exhibit high psychoticism.

The study shows (48.4%)exhibit low while, (51.6%) exhibit high level.<sup>27</sup> In the study out of

636 participants 229 participants belongs to neuroticism among which 34.24% exhibit moderate level while 46.15% exhibit high level.<sup>28</sup> In the study 4.5% participants exhibit in neuroticism.<sup>29</sup> While, This study shows the relation of neuroticism with speaking anxiety ,as 10.9% exhibit low, 42.4% exhibit moderate while 46.4% exhibit high neuroticism.

We have limited our study to only medical students of different fields from different medical universities in Karachi. In this study doctors or postgraduate were not chosen as well as students not associated with medical studies and religion cast was not part of our study.

## CONCLUSION

The results highlight that fear of public speaking is more prevalent in female medical students as compared to male medical students. Further research is required to evaluate the relationship between students who have gone through effective teaching strategies and who have not .To check whether these teaching strategies are playing a part or it's just due to passage of time, reduce their anxiety level.

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