

# **Assessment of Social phobia and it's effects on performance in dental students using SPIN tool - An institution based study**

**Prateek Veerendrakumar .S**

Department of Public Health Dentistry  
Saveetha Dental College and Hospitals,  
Saveetha Institute of Medical and Technical Science,  
Saveetha University, Chennai.

Email Id:152001058.sdc@saveetha.com

Number:8884580849

**Dr.D.Sri Sakthi**

Reader

Department of Public Health Dentistry  
Saveetha Dental College and Hospitals,  
Saveetha Institute of Medical and Technical Science,  
Saveetha University, Chennai.

**Email Id:[drsrisakthiphd@gmail.com](mailto:drsrisakthiphd@gmail.com)**

**Corresponding author**

**Dr.D.Sri Sakthi**

Reader

Department of Public Health Dentistry  
Saveetha Dental College and Hospitals,  
Saveetha Institute of Medical and Technical Science,  
Saveetha University, Chennai.

Velappanchavadi,

Chennai-600077.

**Tamil nadu, India.**

**Phone: 8122399966**

**Email Id:[drsrisakthiphd@gmail.com](mailto:drsrisakthiphd@gmail.com)**

## **ABSTRACT**

**Introduction:** Social anxiety disorder is a serious and disabling mental health problem that begins before or during adolescence, with the potential to significantly interfere with an individual's daily functioning and overall quality of life.

**Materials and methods:** A cross sectional questionnaire survey was used to assess the degree of social phobia in 103 dental college students using the social phobia questionnaire. The data collected was analysed statistically by SPSS software version 23 and Pearson Chi square test was used for inferential analysis.

**Results:**In this study, out of the 103 dental students, it was found that 52.43% were moderately afraid of people in authority, 71.84% avoided communicating with people having authority due to their fear. Only 12.62% of the participants weren't afraid to give speeches to an audience hence showing that they were least phobic and love to communicate and share their views. In this study it was found that nearly 64.08% students are suffering from social phobia.

**Conclusion:**From this study it can be concluded that social phobia has diverse ways of affecting the students and one of its effects has directed itself towards the students academic performance. Social phobia has been a problem for students.

**Keywords** Health problem, Lifestyle, Phobia, Social Anxiety Disorder, innovative counselling

## **Introduction**

A phobia is a type of anxiety disorder that causes an individual to experience extreme, irrational fear. It is an excessive and unrealistic fear of an object, person, animal, activity or situation(1). People with phobias often realize their fear is irrational, but they're unable to do anything about it. Such fears can interfere with work, school, and personal relationships. Some phobias are very specific and limited (2).

Causes of phobias can range from genetic predisposition to any recent traumatizing events, which can trigger an episode at any age (1,3). People suffering from different phobias generally go through a wide spectrum of symptoms depending upon their specific phobia and its magnitude :Excessive, unreasonable, persistent feelings of fear or anxiety that are triggered by a particular object, activity or situation (4).

Advancement in the scientific field of child development mentions that specific fear-eliciting experiences(phobia) early in life can disrupt the basic development of students such as stress regulation, learning, memory, and social behavior(1,3,5) -(1-3,5-8). Dentistry is one branch of medicine, which requires rigorous training both in theoretical and practical aspects. Right from the initial years till internship, the students are groomed and made experts not only in the subject but holistically as individuals.

Communication with peers, seniors and most importantly patients is a key to developing as an all round professional. Our team has extensive knowledge and research experience that has translate into high quality publications(9-17),(18),(19),(20,21),(22),(23),(24-28) The current study was planned to assess the phobic nature of students of various years in study in a private dental college in Chennai. A SPIN tool questionnaire was used as a quick assessment tool to get baseline knowledge about the same mentioned above(29).

## **Materials and methods**

Study design cross- sectional type of study

Study setting - includes students of a private dental college in Chennai

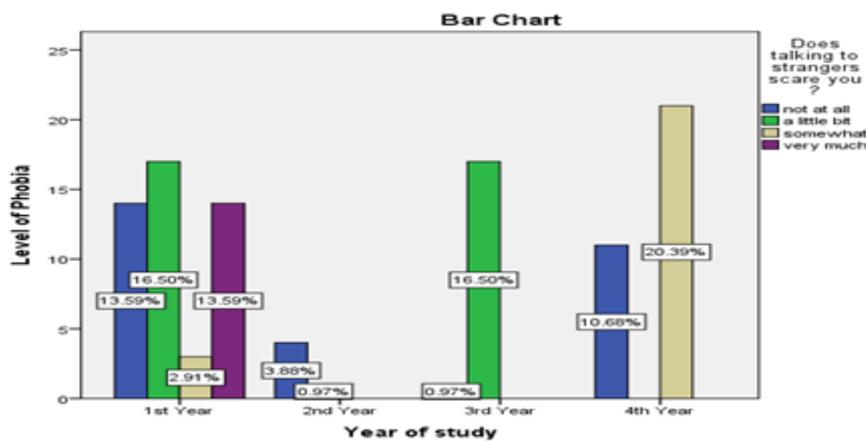
Sample size - 104 students of the dental college if different ages

Sampling and scheduling- owing to the nature of the study design and setting, a convenience sampling method was used. data was collected over a period of one month.

Survey instrument - a pre tested and validated questionnaire was used to analyse the degree of social phobia among students of different age groups.

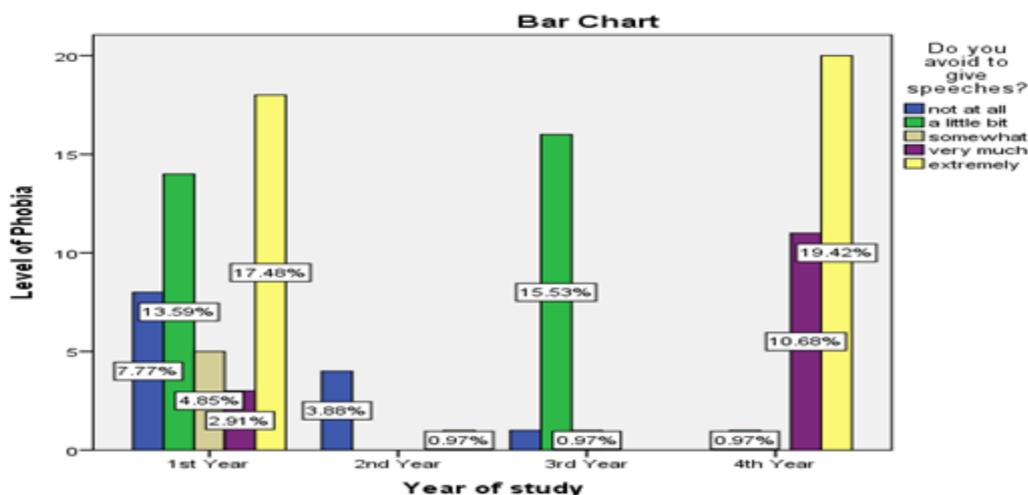
**Inclusion and exclusion criteria** - those who were willing to answer the questionnaire during 1st year to 4th year in the dental college, were included in the study. Those students that had a language barrier to fill the English version of the questionnaire were excluded. **Statistical analysis** - The responses from the Google Sheet were transferred into an Excel and were then exported to SPSS software, version 25. Descriptive statistics was done using frequency and percentage. Inferential statistics was done using Chi square test. Interpretation was based on a p value less than 0.05, which was considered statistically significant. Comparisons were done between independent variables like age, gender, occupation and knowledge, attitude practice responses by the participants.

**Results** A total number of 103 dental students of a private dental college participated in this survey study. Out of these students, 48 participants are males and the rest 55 are females and majority of them are studying 1st year BDS. The knowledge component revealed that 52.43% were a little bit afraid of people in authority, 71.84% avoided speaking to authorities due to their fear of them and 89.32% avoided talking to people whom they don't know whereas 42.72% weren't scared by criticism. But 74.76% avoided speaking to people they don't know and 70.87% were scared to talk to strangers as they were engulfed by their fear of embarrassment and 58.25% avoided going to parties. Only 12.62% of the participants weren't afraid to give speeches to an audience. People search many ways to avoid being criticised like in this study, 76.7% of them would do anything to avoid being criticised in public. On the other hand, 36.89% aren't bothered to blush in front of people and 33.98% aren't scared to attend parties and social events. When people were around them, 80.58% of them got heart palpitations due to sudden fear. Out of all participants, 64.08% were afraid of doing things which they like when they have been watched by people around them. Almost 76.7% of the students' worst fears are being embarrassed or by looking studied in front of people. 67.96% are still trembling or shaking in front of others but 87.38% are actively interacting during question and answer sessions in their class. On asking about types of teaching methods, the majority 92.23% of them are comfortable with the idea of lectures for 45 min with 15 min fun interaction sessions and only 21.36% weren't performing seminars in classes. 63.11% of the students were comfortable with individual kinds of study and in group studies, 96.12% of the students' contribution was low.



**Figure 1 :** The graph shows the level of phobia among 1st, 2nd, 3rd, 4th year students in talking to strangers. This graph shows the association between the level of phobia of students of different years in talking to strangers. The X axis represents the year of study and the Y axis represents level of phobia. The blue bar represents the students who were “not at all” afraid to talk to strangers. The green bar shows the students who were “a little bit” afraid to talk to strangers. The cream colour bar represents the part of the population that were “somewhat” afraid to talk to strangers. The Magenta colour bar represents the students who were very much afraid to talk. Majority of the first year students (16.5%) and 16.5% of third year students were a little bit afraid to make a conversation, While only 20.39% of the final year students were somewhat afraid. This shows that with years of training the fear of communication reduces. The difference in barriers in communication across different years were not statistically significant

Pearson's chi square test shows p value is 0.1999 ( significant p value = >0.05)



**Figure 2 :** The graph shows the level of phobia among 1st, 2nd, 3rd, 4th year students in being the centre of attraction. The X axis represents the year of study and the Y axis represents level of phobia. The blue bar represents the students who were “not at all” afraid to “be the center of attraction”. The green bar shows the students who were “a little bit” afraid to be in the centre of attraction. The cream colour bar represents the part

of the population that were “somewhat “ afraid to be the centre of attraction . The purple colour bar represents the students who were very much afraid of being the centre of attraction.The yellow bar represents the students who were extremely afraid to be the centre of attraction. In the first and final year of study 17.48% and 19.42% were extremely phobic to deliver speeches,whereas 2nd and third years students were comparatively less phobic. A Pearson's chi square test was done to check if the difference between the years were significant, p value was found to be 0.1999 ( significant p value  $\leq 0.05$ ), hence statistically not significant

### **Discussion:**

This study aims to evaluate the prevalence of social phobia and its impact on quality of life among dental students in a private dental college. In this study, social phobia was found in 76.7% of subjects, much more than other studies among undergraduate university students in different settings. In other words, levels of social anxiety symptoms show about 64.08% of them had moderate symptoms, which is in line with the study undertaken by some researchers. But in other research, a smaller number of students are only found with social anxiety.(5)(30)

The first year students seem to be open to being the centre of attention, since the majority of them chose ‘not at all’ as the response when they were asked if they would avoid activities in which they are the center of attention. There were also a small proportion of people who were extremely not ready to be a part of activities in which they were the centre of attention, this group of individuals belonged to first year as well. The third year students seem to have a little fear while the fourth year students were unsure whether they are comfortable being the centre of attention or not. This result findings were similar to that of the findings of some scientists.(6)(31)

From Fig 1, it can be interpreted that the fear of talking to strangers is more prevalent in 1st (13.59) year students as compared to 2nd, 3rd and 4th years. At the same time, students who do have any fear of talking to strangers also belong to 1st year(13.59%) as well. The majority of students belonging to fourth year can be considered to not be sure about their feelings when encountering strangers. The second and third year students seem to be fairly extroverted since they seem to have little or no fear in talking to strangers. On account of strangers, some even submitted to the world their findings which aren't similar to that of this present study's results.(7). This study is just a pilot study with limited sample size and only among dental students. This research can be done on a large scale to spread to the general public about social phobia.(32)

### **Conclusion:**

Social anxiety disorder is a common, chronic, often disabling yet greatly underrecognized condition. It is also a condition for which effective therapies (both pharmacologic and psychotherapeutic) are readily available. The impact of treatment can be strikingly beneficial, even in individuals who have been suffering with the condition for decades. From this study it can be concluded that social phobia has diverse ways of affecting the students and one of its effects has directed itself towards the students academic performance .Social phobia has been a problem for a huge number of students. It is prevalent mostly in 1st year girls and least prevalent among the 4th year boys .

**Acknowledgement:**

The authors would like to thank Saveetha Dental college and Hospitals , Saveetha institute of medical and technical Sciences . Saveetha university for providing research laboratory facilities to carry out the study

**Source of funding**

The present project is supported/funded/sponsored by

**1. Saveetha Institute of Medical and Technical Sciences**

SaveethaDentalCollege and Hospitals

Saveetha University

**2. Funding organization name:**

Dental Surgery C

enter

**Conflict of interest:**

All the authors declare that there was no conflict of interest in the present study

**References:**

1. Wersebe H, Lieb R, Meyer AH, Miche M, Mikoteit T, Imboden C, et al. Well-being in major depression and social phobia with and without comorbidity. *Int J Clin Health Psychol* [Internet]. 2018 Sep;18(3):201–8. Available from: <http://dx.doi.org/10.1016/j.ijchp.2018.06.004>
2. Cohen S. High anxiety: a Jungian analysis of phobia [Internet]. *Phobia*. 2018. p. 51–68. Available from: <http://dx.doi.org/10.4324/9780429478284-3>
3. Hofmann SG, DiBartolo PM. *Social Anxiety: Clinical, Developmental, and Social Perspectives* [Internet]. Elsevier; 2014. 844 p. Available from: <https://play.google.com/store/books/details?id=Q11zAwAAQBAJ>
4. Xu X, Huebner ES, Tian L. Co-Developmental Trajectories of Specific Anxiety Symptoms from Middle Childhood to Early Adolescence: Associations with Psychological Well-Being and Academic Achievement. *J Youth Adolesc* [Internet]. 2021 Mar 6; Available from: <http://dx.doi.org/10.1007/s10964-021-01411-5>
5. Lampe L, Slade T, Issakidis C, Andrews G. Social phobia in the Australian National Survey of Mental Health and Well-Being (NSMHWB) [Internet]. Vol. 33, *Psychological Medicine*. 2003. p. 637–46. Available from: <http://dx.doi.org/10.1017/s0033291703007621>
6. Davidson JR, Hughes DL, George LK, Blazer DG. The epidemiology of social phobia: findings from the Duke Epidemiological Catchment Area Study. *Psychol Med* [Internet]. 1993 Aug;23(3):709–18. Available from: <http://dx.doi.org/10.1017/s0033291700025484>
7. Forde DR, Stein MB, University of Manitoba. Department of Sociology, Walker JR (john R, Winnipeg Area Study. Setting Diagnostic Thresholds for Social Phobia : Considerations from a Community Survey of Social Anxiety [Internet]. 1993. 64 p. Available from: [https://books.google.com/books/about/Setting\\_Diagnostic\\_Thresholds\\_for\\_Social.html?hl=&id=mBF2NAEACAAJ](https://books.google.com/books/about/Setting_Diagnostic_Thresholds_for_Social.html?hl=&id=mBF2NAEACAAJ)
8. SimadiFA, GazanAM. SocialPhobiaAmongJordaniansUniversityStudents [Internet]. - دراسات العلوم والإنسانيات والاجتماعية. 2019. p. 301. Availablefrom: <http://dx.doi.org/10.35516/0103-046-985-020>
9. Mathew MG, Samuel SR, Soni AJ, Roopa KB. Evaluation of adhesion of Streptococcus mutans, plaque

- accumulation on zirconia and stainless steel crowns, and surrounding gingival inflammation in primary molars: randomized controlled trial. *Clin Oral Investig* [Internet]. 2020 Sep;24(9):3275–80. Available from: <http://dx.doi.org/10.1007/s00784-020-03204-9>
10. Samuel SR. Can 5-year-olds sensibly self-report the impact of developmental enamel defects on their quality of life? *Int J Paediatr Dent* [Internet]. 2021 Mar;31(2):285–6. Available from: <http://dx.doi.org/10.1111/ipd.12662>
  11. Samuel SR, Kuduruthullah S, Khair AMB, Al Shayeb M, Elkaseh A, Varma SR, et al. Impact of pain, psychological-distress, SARS-CoV2 fear on adults' OHRQOL during COVID-19 pandemic. *Saudi J Biol Sci* [Internet]. 2021 Jan;28(1):492–4. Available from: <http://dx.doi.org/10.1016/j.sjbs.2020.10.033>
  12. Samuel SR, Kuduruthullah S, Khair AMB, Shayeb MA, Elkaseh A, Varma SR. Dental pain, parental SARS-CoV-2 fear and distress on quality of life of 2 to 6 year-old children during COVID-19. *Int J Paediatr Dent* [Internet]. 2021 May;31(3):436–41. Available from: <http://dx.doi.org/10.1111/ipd.12757>
  13. Samuel SR, Acharya S, Rao JC. School Interventions-based Prevention of Early-Childhood Caries among 3-5-year-old children from very low socioeconomic status: Two-year randomized trial. *J Public Health Dent* [Internet]. 2020 Jan;80(1):51–60. Available from: <https://onlinelibrary.wiley.com/doi/10.1111/jphd.12348>
  14. Vikneshan M, Saravanakumar R, Mangaiyarkarasi R, Rajeshkumar S, Samuel SR, Suganya M, et al. Algal biomass as a source for novel oral nano-antimicrobial agent. *Saudi J Biol Sci* [Internet]. 2020 Dec;27(12):3753–8. Available from: <http://dx.doi.org/10.1016/j.sjbs.2020.08.022>
  15. Chellapa LR, Rajeshkumar S, Arumugham MI, Samuel SR. Biogenic Nanoselenium Synthesis and Evaluation of its antimicrobial, Antioxidant Activity and Toxicity. *Bioinspired Biomim Nanobiomaterials* [Internet]. 2020 Jul 23;1–6. Available from: <https://www.icevirtuallibrary.com/doi/10.1680/jbibrn.19.00054>
  16. Samuel SR, Mathew MG, Suresh SG, Varma SR, Elsubeihi ES, Arshad F, et al. Pediatric dental emergency management and parental treatment preferences during COVID-19 pandemic as compared to 2019. *Saudi J Biol Sci* [Internet]. 2021 Apr;28(4):2591–7. Available from: <http://dx.doi.org/10.1016/j.sjbs.2021.02.002>
  17. Barma MD, Muthupandiyani I, Samuel SR, Amaechi BT. Inhibition of *Streptococcus mutans*, antioxidant property and cytotoxicity of novel nano-zinc oxide varnish. *Arch Oral Biol* [Internet]. 2021 Jun;126:105132. Available from: <http://dx.doi.org/10.1016/j.archoralbio.2021.105132>
  18. Muthukrishnan L. Nanotechnology for cleaner leather production: a review. *Environ Chem Lett* [Internet]. 2021 Jun 1;19(3):2527–49. Available from: <https://doi.org/10.1007/s10311-020-01172-w>
  19. Muthukrishnan L. Multidrug resistant tuberculosis - Diagnostic challenges and its conquering by nanotechnology approach - An overview. *Chem Biol Interact* [Internet]. 2021 Mar 1;337:109397. Available from: <http://dx.doi.org/10.1016/j.cbi.2021.109397>
  20. Sekar D, Auxilia PK. Letter to the Editor: H19 Promotes HCC Bone Metastasis by Reducing Osteoprotegerin Expression in a PPP1CA/p38MAPK- Dependent Manner and Sponging miR- 200b- 3p [Internet]. *Hepatology*. 2021. Available from: <http://dx.doi.org/10.1002/hep.31719>
  21. Gowhari Shabgah A, Amir A, Gardanova ZR, Olegovna Zekiy A, Thangavelu L, Ebrahimi Nik M, et al. Interleukin-25: New perspective and state-of-the-art in cancer prognosis and treatment approaches. *Cancer Med* [Internet]. 2021 Aug;10(15):5191–202. Available from: <http://dx.doi.org/10.1002/cam4.4060>
  22. Kamala K, Sivaperumal P, Paray BA, Al-Sadoon MK. Author response for “Identification of haloarchaea during fermentation of *Sardinella longiceps* for being the starter culture to accelerate fish sauce production” [Internet]. Wiley; 2021. Available from: <https://publons.com/publon/47375106>
  23. Ezhilarasan D, Lakshmi T, Subha M, Deepak Nallasamy V, Raghunandhakumar S. The ambiguous role of

- sirtuins in head and neck squamous cell carcinoma. *Oral Dis* [Internet]. 2021 Feb 11; Available from: <http://dx.doi.org/10.1111/odi.13798>
24. Sridharan G, Ramani P, Patankar S, Vijayaraghavan R. Evaluation of salivary metabolomics in oral leukoplakia and oral squamous cell carcinoma. *J Oral Pathol Med* [Internet]. 2019 Apr;48(4):299–306. Available from: <http://dx.doi.org/10.1111/jop.12835>
  25. R H, Hannah R, Ramani P, Ramanathan A, Jancy MR, Gheena S, et al. CYP2 C9 polymorphism among patients with oral squamous cell carcinoma and its role in altering the metabolism of benzo[a]pyrene [Internet]. Vol. 130, *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*. 2020. p. 306–12. Available from: <http://dx.doi.org/10.1016/j.oooo.2020.06.021>
  26. Kumar, S. (2022). A quest for sustainium (sustainability Premium): review of sustainable bonds. *Academy of Accounting and Financial Studies Journal*, Vol. 26, no.2, pp. 1-18
  27. Sehgal.P, Kumar.B, Sharma.M, Salameh A.A, Kumar.S, Asha.P (2022), Role of IoT In Transformation Of Marketing: A Quantitative Study Of Opportunities and Challenges, *Webology*, Vol. 18, no.3, pp 1-11
  28. J PC, Pradeep CJ, Marimuthu T, Krithika C, Devadoss P, Kumar SM. Prevalence and measurement of anterior loop of the mandibular canal using CBCT: A cross sectional study [Internet]. Vol. 20, *Clinical Implant Dentistry and Related Research*. 2018. p. 531–4. Available from: <http://dx.doi.org/10.1111/cid.12609>
  29. Wahab PUA, Abdul Wahab PU, Madhulaxmi M, Senthilnathan P, Muthusekhar MR, Vohra Y, et al. Scalpel Versus Diathermy in Wound Healing After Mucosal Incisions: A Split-Mouth Study [Internet]. Vol. 76, *Journal of Oral and Maxillofacial Surgery*. 2018. p. 1160–4. Available from: <http://dx.doi.org/10.1016/j.joms.2017.12.020>
  30. Mudigonda SK, Murugan S, Velavan K, Thulasiraman S, Krishna Kumar Raja VB. Non-suturing microvascular anastomosis in maxillofacial reconstruction- a comparative study. *Journal of Cranio-Maxillofacial Surgery* [Internet]. 2020 Jun 1;48(6):599–606. Available from: <https://www.sciencedirect.com/science/article/pii/S1010518220301098>
  31. Beck A, Sobrio S, Argyle N. Physical and cognitive symptoms of sports performance anxiety [Internet]. *PsycEXTRA Dataset*. 2011. Available from: <http://dx.doi.org/10.1037/e741382011-062>
  32. Reta Y, Ayalew M, Yeneabat T, Bedaso A. Social Anxiety Disorder Among Undergraduate Students of Hawassa University, College of Medicine and Health Sciences, Ethiopia. *Neuropsychiatr Dis Treat* [Internet]. 2020 Feb 26;16:571–7. Available from: <http://dx.doi.org/10.2147/NDT.S235416>
  33. Arnone JM, Rizzolo D, Conti RP. Examination of Executive Function and Social Phobia Among Female College-Aged Students With Celiac Disease. *J Psychosoc Nurs Ment Health Serv* [Internet]. 2019 Feb 1;57(2):25–34. Available from: <http://dx.doi.org/10.3928/02793695-20180924-01>
  34. Pihasnawati, Pihasnawati, Hasanah M, Erita MM. Dhikr Relaxation to Reduce Phobia in Students With Specific Phobia Disorder [Internet]. *Proceedings of the 1st Annual International Conference on Social Sciences and Humanities (AICOSH 2019)*. 2019. Available from: <http://dx.doi.org/10.2991/aicosh-19.2019.11>