

Yawning Behaviour in Dental Students- A Questionnaire Based Study

Dr. R. Ravi Sunder^{1*}, Dr. P. Neelima²

¹Professor, Department of Physiology, GITAM Institute of Medical Sciences and Research (GIMSR), Visakhapatnam, India

²Professor, Department of Anatomy, GITAM Institute of Medical Sciences and Research (GIMSR), Visakhapatnam, India

DOI: 10.36348/sijap.2019.v02i07.003

| Received: 18.03.2019 | Accepted: 25.03.2019 | Published: 25.07.2019

*Corresponding author: Dr. R. Ravi Sunder

Abstract

Yawning reflex occurs in many animals and humans. It is believed to be the symbol of tiredness or boredom. It is said to be a contagious phenomenon. Scientific research is limited regarding the causes and purpose of yawning. The present study is planned to determine different yawning patterns in adolescents. After taking informed consent, the questionnaire with 6 point likert scale was given to 76 dental students (66 girls & 10 boys). They were asked to answer accordingly without revealing their identity. The results were represented graphically. Most of the students answered that they yawn "somewhat" or "not at all". A positive response of yawning "very much" was given by 68.42% of students when they lack sleep. 73.68% & 71.05% students "don't yawn at all" during an interview and while taking this survey respectively. Yawning is said to be contagious, but only 23.68% replied that they "yawn a lot" while seeing others do it. It can be concluded that the study group is probably alert and active as they expressed their yawning patterns at the base level.

Keywords: Yawning, behaviour, dental students, questionnaire, likert scale.

Copyright © 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (Non-Commercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

Yawning is a reflex phenomenon which starts with wide opening of the mouth with deep inspiration, a brief interruption of ventilation and followed by a short expiration. It lasts for about 5 seconds [1]. Since ages, yawning is considered as a symbol of boredom or tiredness. Though literature is scanty for the purpose and causes of yawning, studies show that yawning serves the thermoregulatory function of brain [2]. It is also related with arousal phenomenon [3].

The contagious phenomenon of yawning is well documented and is strongly associated with empathy skills [4, 5]. Humans begin to yawn spontaneously as early as 20 weeks of gestation [6]. Authors narrate yawning to represent a paralinguistic signal that has multiple functional outcomes across various species [7]. The literature is inadequate regarding the yawning patterns in India. The present

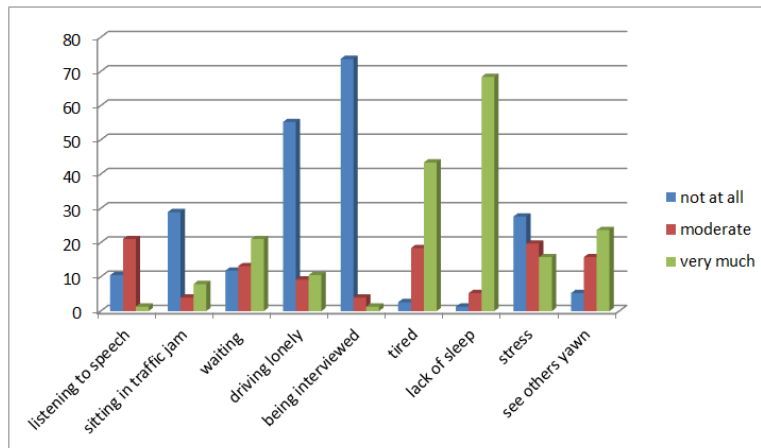
study is undertaken to determine the yawning patterns in dental students from north coastal Andhrapradesh through a questionnaire based survey.

MATERIALS & METHODS

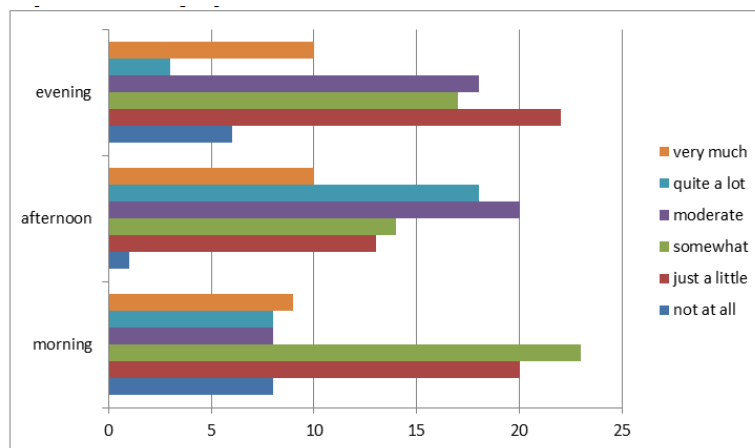
1st year BDS students were explained about different yawning patterns and its causes. 76 students (66 girls & 10 boys) gave their informed consent to participate in the study. Yawning questionnaire with six point likert scale developed by Greco [8] was circulated among them and were asked to fill it appropriately without revealing their identity. There were 16 questions and the answers were graphically represented.

RESULTS

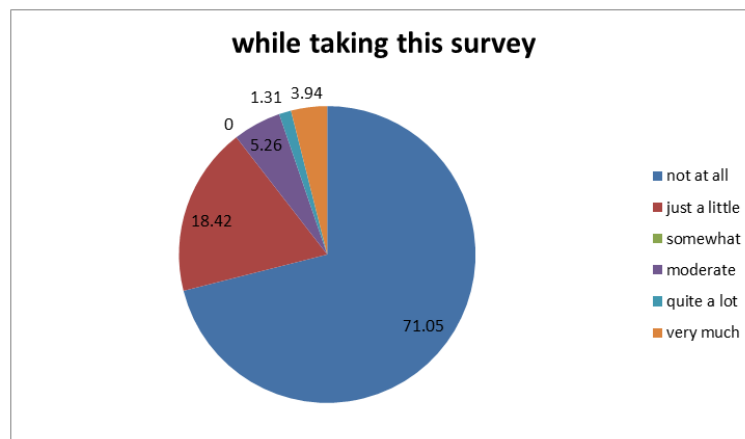
The results of the study were represented as follows:



Graph-1: Percentage of students responding to various situations



Graph-2: chart showing responses at different times



Graph-3: yawning behaviour of the students while taking this survey

DISCUSSION

Yawning is considered to be an expression of tiredness or boredom. Research is scanty on “Yawning” though it is an everyday phenomenon [9]. In addition to a symbol of exhaustion, yawning is also associated with arousal, social empathy and brain cooling. Winther *et al.*, [10] tried to establish an experimental evidence for the relation between yawning and ear pressure. Another study [11] revealed the correlation between yawning

and depression. The present study is done on the dental students of 1st year to determine their yawning patterns in various situations. It is observed that most of the students have “just a little” or “somewhat” pattern of yawning. 73.68% students don’t yawn at all when being interviewed. Most of the students (68.42%) yawn very much when they lack sleep. A considerable number of students (23) marked that they yawn somewhat in the morning when compared to other times of the day. Yawning is said to be contagious but only 23.68%

students answered they yawn very much when they see others do it. 71.05% marked that they didn't yawn at all while taking this survey. This shows that the students are probably alert and responsive. Further studies can be done on larger groups and can also be compared between the groups. The students were explained about the results and were appreciated for being alert and advised to continue the good habits and not to be lazy.

CONCLUSION

A questionnaire based study of yawning behaviour revealed most of the students yawn "just a little" or "not at all". Though supposed to be contagious, approximately 1/4th of the study group only opined that they yawn very much by seeing others yawn.

REFERENCES

1. Askenasy, J. J. M. (1989). Is yawning an arousal defense reflex?. *The Journal of psychology*, 123(6), 609-621.
2. Guggisberg, A. G., Mathis, J., Schnider, A., & Hess, C. W. (2010). Why do we yawn?. *Neuroscience & Biobehavioral Reviews*, 34(8), 1267-1276.
3. Matikainen, J., & Elo, H. (2008). Does yawning increase arousal through mechanical stimulation of the carotid body?. *Medical hypotheses*, 70(3), 488-492.
4. Smith, E. O. (1999). Yawning: an evolutionary perspective. *Human evolution*, 14(3), 191-198.
5. Platek, S. M., Mohamed, F. B., & Gallup Jr, G. G. (2005). Contagious yawning and the brain. *Cognitive brain research*, 23(2-3), 448-452.
6. Bartholomew, A. J., & Cirulli, E. T. (2014). Individual variation in contagious yawning susceptibility is highly stable and largely unexplained by empathy or other known factors. *PLoS One*, 9(3), e91773.
7. Gupta, S., & Mittal, S. (2013). Yawning and its physiological significance. *International Journal of Applied and Basic Medical Research*, 3(1), 11-15.
8. GOVERN, J. (1993). On the context of yawning: when, where, and why?. *The Psychological Record*, 43(2), 175-183.
9. Simonds, A. K. (1999). Curbside Consult: Why do people yawn?. *Western journal of medicine*, 170(5), 283.
10. Winther, B., Gwaltney Jr, J. M., Phillips, C. D., & Hendley, J. O. (2005). Radiopaque contrast dye in nasopharynx reaches the middle ear during swallowing and/or yawning. *Acta otolaryngologica*, 125(6), 625-628.
11. Gallezzo, S. R. (2006). Examining the connection between yawning and depression.