



Attention Span Awareness, Self-reported Attention Duration, and Perceived Determinants among Clinical Medical Students at Chukwuemeka Odumegwu Ojukwu University, Nigeria: A Cross-Sectional Study

Akabuikwe JC¹, Eyisi IG², Njelita, IA³, Eyisi, CS⁴, & Nwachukwu C. C.⁵

¹Dept of Obstetrics and Gynaecology, Chukwuemeka Odumegwu Ojukwu University Teaching Hospital-Amaku, Awka, Nigeria

^{2,3,5}Dept Community Medicine and Primary Healthcare, Chukwuemeka Odumegwu Ojukwu University Teaching Hospital-Amaku, Awka, Nigeria

⁴Dept of Medicine, University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu, Nigeria

Abstract

Background: Sustained attention is essential for learning in medical school. Digital distractions, sleep disruption, and stress may compromise students' ability to maintain focus.

Objectives: To assess (i) knowledge of attention span, (ii) self-reported average attention span, and (iii) perceived factors associated with reduced attention span among clinical medical students.

Methods: A cross-sectional descriptive study was conducted among clinical medical students (400–600 level) of Chukwuemeka Odumegwu Ojukwu University. A structured self-administered online questionnaire collected socio-demographic data, awareness/understanding of attention span, self-reported attention span (categorized), perceived factors affecting attention (multiple responses), and attention-maintenance strategies (Likert items). Data were analyzed using descriptive statistics and chi-square/Fisher's exact tests where appropriate.

Results: A total of 145 students participated (mean age 20.67 ± 2.97 years; 51.0% female). Overall, 84.1% reported having heard of "attention span." Only 17.2% were classified as having "good knowledge" based on the study's scoring approach. Self-reported attention span was >30 minutes in 35.2%, 20–30 minutes in 28.3%, 10–20 minutes in 11.7%, and <10 minutes in 4.8%; 20.0% had no idea. Frequently reported perceived factors affecting attention were social media (81.4%), anxiety/stress (80.7%), hunger (79.3%), sleep deprivation (77.9%), boring lectures (74.5%), and mental health issues (68.3%). Most participants (94.5%) demonstrated "good" attention-maintenance strategies/awareness of focus shift. Knowledge classification was significantly associated with age, level of study, and residence ($p < 0.05$).

Conclusion: Most clinical medical students reported awareness of attention span and endorsed multiple perceived barriers, particularly social media use, stress, sleep deprivation, and hunger. Interventions supporting sleep hygiene, stress management, nutrition, and digital self-regulation may be beneficial.

Keywords Attention Span; Medical Students; Social Media; Sleep Deprivation

Citation Akabuikwe JC, Eyisi IG, Njelita, IA, Eyisi, CS, Nwachukwu CC. Attention Span Awareness, Self-reported Attention Duration, and Perceived Determinants among Clinical Medical Students at Chukwuemeka Odumegwu Ojukwu University, Nigeria: A Cross-Sectional Study. *Medicine and Public Health Research Journal*, 2026, 1-5 <https://doi.org/10.5281/zenodo.18841448>



Background

Attention span refers to the length of time an individual can concentrate on a specific task or item of interest. Medical training requires sustained attention during lectures, clinical teaching, and independent study. However, students may experience frequent cognitive interruptions from social media and multi-screen use, psychological stress, poor sleep quality, hunger, and environmental distractions, which can impair learning and retention.

Although popular media frequently claim that “average attention spans” have drastically shortened, these figures are inconsistently defined and often lack clear peer-reviewed primary evidence. More useful for medical education is the broader evidence that attention during lectures is not fixed at a few minutes and varies with teaching design and learner engagement; even when attention declines, it does not necessarily collapse abruptly.

In Nigeria, there is limited published data describing medical students’ awareness of attention span, their self-perceived attention duration, and contextual factors they believe reduce attention. Understanding these patterns may guide student support and teaching strategies.

Objectives

General objective: To explore attention span awareness and self-reported attention duration among clinical medical students.

Specific objectives:

1. Assess knowledge/awareness of attention span among COOU clinical medical students.
2. Determine self-reported average attention span among COOU clinical medical students.
3. Identify perceived factors associated with reduced attention span.

Methods

Study Design and Setting

A cross-sectional descriptive study was conducted among clinical medical students of Chukwuemeka Odumegwu Ojukwu University, Awka campus, Anambra State, Nigeria.
Study Population

Undergraduate clinical medical students (400–600 level) who provided informed consent and were available during data collection were included. Students with conditions reported to affect attention were excluded.
Sample Size

The initial sample size (n) was estimated using Cochran’s formula for large populations: $n = Z^2 \times p(1-p) / d^2$. Using $Z=1.96$, $p=0.77$ (from a prior survey indicating a high proportion reporting suboptimal focus), and $d=0.05$ yielded $n \approx 272.1$. A finite population correction with $N=300$ produced a final minimum sample ≈ 143 . The study analyzed 145 responses.

Sampling Technique

Stratified random sampling was planned by academic level, with random selection within strata (400L, 500L, 600L).

Data Collection Instrument

Data were obtained using a structured, self administered questionnaire divided into three sections:

- Section A:** Socio demographic characteristics of respondents
- Section B:** Awareness and understanding of attention span, including self reported attention duration
- Section C:** Strategies used in maintaining attention and awareness of shifts in focus, measured using a Likert scale

Operational Definition

Knowledge of attention span was assessed using two components:

1. Whether the respondent had heard of attention span (Yes or No)
2. Selection of sources of information, allowing multiple responses

Scores ranging from 4 to 7 were categorized as good knowledge, while scores between 1 and 3 were categorized as poor knowledge.

It should be noted that this scoring approach primarily reflects exposure to information sources rather than depth of conceptual understanding. A revision of the knowledge scale is advisable for publication purposes to better capture true knowledge levels.

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were presented as frequencies, percentages, and mean \pm standard deviation.

Associations between variables were tested using the chi square test. Fisher's exact test was applied where the assumptions for chi square were not met. Statistical significance was set at $p < 0.05$.

Ethical Considerations

Ethical approval was obtained from the Community Medicine Department of Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Amaku, Awka.

Participation was voluntary, and respondents' anonymity was maintained throughout the study.

Results

Participant Characteristics

A total of 145 students participated in the study. The mean age was 20.67 ± 2.97 years. Slightly over half of the respondents were female (51.0%).

Participants were fairly evenly distributed across academic levels: 400 level students accounted for 35.2%, 500 level students 30.3%, and 600 level students 34.5%. The majority of respondents resided in private lodges (82.1%), while a smaller proportion lived in other forms of accommodation.

Knowledge, Awareness, and Understanding of Attention Span

Most respondents (84.1%) indicated that they had heard of the term "attention span." Social media was the most commonly reported source of information (63.2%), followed by classroom teaching (27.1%).

A large proportion (89.0%) correctly defined attention span as the ability to focus on a task for a period of time. Almost all participants (96.6%) believed that attention span can be improved.

However, when categorized using the study's scoring system, 82.8% of respondents were classified as having poor knowledge, while 17.2% were categorized as having good knowledge.

Statistical analysis showed significant associations between knowledge category and age ($p = 0.003$), level of study ($p = 0.009$), and place of residence ($p = 0.002$). There was no significant association between knowledge category and gender ($p = 0.915$).

Self Reported Attention Span

Regarding perceived duration of attention, 35.2% of respondents reported being able to maintain attention for more than 30 minutes. Another 28.3% reported a duration of 20 to 30 minutes, while 11.7% indicated 10 to 20 minutes. A small proportion (4.8%) reported less than 10 minutes. Notably, 20.0% stated that they had no clear idea of their usual attention span.

Perceived Factors Affecting Attention

Respondents identified several factors they believed negatively influenced their attention. The most frequently reported were social media use (81.4%), anxiety or stress (80.7%), hunger (79.3%), sleep deprivation (77.9%), boring lectures (74.5%), and mental health concerns (68.3%).

Strategies for Maintaining Attention and Awareness of Focus Shift

Most participants reported using adaptive study strategies and demonstrated a high level of awareness regarding shifts in focus. Based on the study's categorization, 94.5% were classified as having good strategies and awareness.

Residence was significantly associated with strategy category ($p = 0.016$). In contrast, age, gender, and level of study did not show statistically significant associations.

Discussion

This study describes awareness and self-reported attention span among clinical medical students in a Nigerian university setting. Although most participants had heard of attention span and correctly defined it, relatively few were classified as having "good knowledge" by the study's scoring approach. This gap likely reflects measurement limitations—because counting "sources of knowledge" may not represent true understanding.

Most students reported attention spans of 20–30 minutes or longer, while one-fifth could not estimate their attention span. This highlights variability in self-perception and suggests a need for metacognitive support. Prior work in medical education suggests attention during lectures is dynamic and influenced by teaching methods rather than collapsing uniformly after a few minutes.

Social media distraction, stress/anxiety, sleep deprivation, and hunger were the dominant perceived contributors to reduced attention. These are plausible targets for intervention: digital self-regulation strategies, stress management, sleep hygiene, and campus-level supports for nutrition and learning environments.

Limitations

Self-reported attention span may differ from objective attention performance. The "knowledge" scoring system likely reflects exposure rather than validated knowledge; it should be revised or interpreted cautiously. Online data collection may introduce selection bias. Cross-sectional design limits causal inference.

Conclusion

Among clinical medical students at COOU, awareness of attention span was high and understanding was generally correct, but perceived barriers to sustained attention were common, especially social media use, stress, sleep deprivation, and hunger. Student support interventions and teaching strategies that reduce distraction and improve wellbeing may help sustain attention during learning.

Recommendations

1. Introduce structured student wellbeing support (sleep/stress/nutrition) and digital self-regulation education.
2. Encourage evidence-based study techniques (spaced practice, active recall, timed focus blocks).
3. Improve lecture engagement through active learning and chunking.

References

1. American Psychological Association. Attention span. 2018. Available from: <https://dictionary.apa.org/attention-span>
2. Samba Recovery. Average human attention span statistics and facts. Available from: <https://www.sambarecovery.com/rehab-blog/average-human-attention-span-statistics>
3. Opara E, Adalikwu MT, Tolorunleke CA. The impact of TikTok's fast paced content on attention span of students. *Int J Res Publ Rev.* 2025;6(8):5045 to 5052.
4. City One Initiative. The declining attention span of students: a learning barrier. Available from: <https://www.cityoneinitiative.com/post/declining-attention-span-of-students-learning-barrier>
5. Kaur S. Unseen barriers: the impact of distraction on student learning. *Glob J Adv Res.* 2025;12(2):25 to 33.
6. Adekoya MO, Akune C. Information overload and its effect on academic performance of students. *Glob Rev Libr Inf Sci.* 2023;19(2):1 to 17.
7. Albuquerque MP, Franco RMC, Rocha-Filho SA. Assessing the impact of sleep restriction on the attention and executive functions of medical students: a prospective cohort study. *Acta Neurol Belg.* 2023;123(4):1421 to 1427.
8. Xu Z, Du W, Niu M, Dang T. The effect of sleep quality on learning engagement of junior high school students: the moderating role of mental health. *Front Psychol.* 2025;16:1476840.
9. Rahmillah IF, Tariq A, King M, Oviedo-Trespalacios O. Evaluating the effectiveness of apps designed to reduce mobile phone use and prevent maladaptive mobile phone use: a multimethod study. *J Med Internet Res.* 2023;25:e42541.
10. Gilakjani PA. Visual, auditory, kinaesthetic learning styles and their impacts on English language teaching. *J Stud Educ.* 2012;2(1):104 to 113.
11. Satriani S, Syamsuddin A, Tamanga N. Identification of student learning styles in implementing differentiation learning in Thai Islamic schools. *Eur J Educ Pedagogy.* 2024;5(1):31 to 34.
12. Google. Pomodoro technique vs deep work: which time management method should you use to supercharge your productivity. Available from: <https://share.google/ymCiKHxrvCezTyKr>
13. Arista Recovery. Average human attention span statistics and facts unveiled. 2025 [cited 2025 Apr 29]. Available from: <https://www.aristarecovery.com/blog/average-human-attention-span-statistics>