Psychological Challenges Faced by Medical Students with Extended Study Duration: A Cross-Sectional Study

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Abstract
An extended duration of study in medical school, often resulting from systemic disruptions such as strikes, can exacerbate psychological distress among students. This cross-sectional study surveyed 45 final-year medical students at the University of Benin, Nigeria, to explore the psychological impacts of prolonged study periods primarily caused by Academic Staff Union of Universities (ASUU) strikes. Descriptive statistics revealed high stress levels (mean = 4.04, SD = 0.99), with 75.6% reporting increased anxiety and 71.1% feeling disconnected from their graduated peers. Financial stress was prevalent (mean = 4.11, SD = 1.10), and 46.7% reported poor or very poor mental health. Odds ratio analyses demonstrated that high financial stress significantly increased the odds of poor mental health (OR = 7.09, 95% CI [1.70, 29.54], p = 0.005) and high stress (OR = 13.62, 95% CI [2.95, 62.87], p = 0.0003). Social disconnection from graduated peers was also associated with poor mental health (OR = 4.29, 95% CI [0.99, 18.62], p = 0.04). Qualitative responses highlighted burnout, self-doubt, and financial strain, with students suggesting more autonomous medical school calendars and enhanced mental health support. These findings underscore the need for institutional reforms to mitigate the psychological toll of extended medical training.

Keywords: *ASUU strike; Extended Study duration; Medical education; Nigeria; Psychological stress.*

Introduction

University education in Nigeria over the last three decades has witnessed numerous disruptions to the school calendar. These have arisen mainly from industrial actions (strikes) by the various academic and non-academic staff unions[1-5]. Since Nigeria's return to democratic governance in 1999, the Academic Staff Union of Universities (ASUU) has embarked on a total of 16 strike actions[6,7]. These strikes have had the effect of disrupting the school's academic activities[1-2], prolonging the semesters[6,7], postponing examinations[1,8], changing resumption dates and ensuring that students invariably have an additional 1-3 calendar years added to their stay in school[8- 10]. Many faculties and departments have had to condense their semesters with shorter periods of teaching and instruction. However, this may not be possible in courses at the Medical College that have sacrosanct periods for clinical postings and rotations. These disruptions have a more deleterious effect on professional health courses, with medical students being among the most adversely affected[11,12].

Medical education is a rigorous and protracted process, spanning 6 years. In Nigeria, external disruptions, such as ASUU strikes, frequently extend this timeline, placing additional psychological and financial burdens on students. Prolonged study durations have been

associated with burnout, anxiety, and reduced academic motivation among medical students worldwide. In resource-constrained settings like Nigeria, where systemic disruptions are common, these challenges may be amplified, yet research on their specific impacts remains limited.

This study addresses critical gaps by providing context-specific data on the psychological effects of prolonged medical training in Nigeria, integrating both quantitative and qualitative insights, and highlighting the underexplored roles of financial stress and social disconnection as key drivers of psychological distress among medical students. It proposes actionable interventions.

Methods

Study Design and Participants

A cross-sectional survey was conducted among medical students at the University of Benin, Nigeria, who experienced extended study duration due to ASUU strikes or other disruptions (e.g., student unrest, government-ordered closures). A convenience sample of 45 students in their final year completed an online Google Form between November and December 2024.

Data Collection

The survey collected demographic information (age, sex, level, year of entry, session) and reasons for extended study duration. Psychological outcomes were assessed using:

- Likert-scale questions (1-5) for overall stress and financial stress.
- Binary (Yes/No/Maybe) or frequency-based questions (Never/Rarely/Sometimes/Often/Always) for anxiety, self-doubt, social comparison, exhaustion, and interest in medicine.
- Categorical responses for mental health diagnoses and overall mental health (Excellent/Good/Fair/Poor/Very Poor). Open-ended questions captured specific challenges, coping strategies, and suggestions for institutional reforms.

Data Analysis

Descriptive statistics (means, standard deviations [SD], frequencies, percentages) were computed for continuous and categorical variables. For odds ratio (OR) analyses, two binary outcomes were defined:

- **Poor mental health**: Poor or Very Poor vs. Excellent, Good, or Fair.
- **High stress**: Stress score ≥ 4 vs. < 4. Exposure variables included:
- Extended study duration: > 1 year vs. ≤ 1 year (median split).
- Sex: Female vs. Male.
- Age: ≤ 24 years vs. > 24 years.
- Reason for delay: ASUU strikes vs. others.
- Financial stress: High (score ≥ 4) vs. Low/Moderate (score < 4).
- Social disconnection from graduated peers: Disconnected (Somewhat or Very Disconnected) vs. Connected (Very Connected, Somewhat Connected, or Neutral). Unadjusted ORs with 95% confidence intervals (CIs) were calculated using 2x2 contingency tables. Chi-square tests were used to assess statistical significance ($p < 0.05$). Pearson's correlation coefficient was used to explore relationships between continuous variables (e.g., financial stress and overall stress). Open-ended responses were thematically analyzed to identify common themes. Analyses were performed using Microsoft Excel and Python (NumPy, SciPy) for calculating odds ratios (ORs) and confidence intervals (CIs).

Results

Demographic Characteristics

The sample comprised 45 medical students (60.0% male, 40.0% female). Most respondents (64.4%) were aged 21-24 years, followed by those aged 25-29 years (28.9%) and those aged 30 years or older (6.7%). The mean extended study duration was 2.02 years (SD = 1.15), with 82.2% attributing delays to ASUU strikes, 11.1% to student unrest, 4.4% to government-ordered closures, and 2.2% to other reasons.

Descriptive Statistics

- **Stress Levels**: The mean overall stress level was 4.04 (SD = 0.99), with 25 students (55.6%) reporting high stress (score ≥ 4). Financial stress was similarly high (mean = 4.11, SD = 1.10), with 29 (64.4%) reporting scores of 4 or higher.
- **Mental Health**: Overall mental health was rated as Poor or Very Poor by 21 (46.7%), Fair by 14 (31.1%), Good by 8 (17.8%), and Excellent by 2 (4.4%). Only 5 (11.1%) reported a diagnosed mental health condition (e.g., OCD, depression).
- **Anxiety and Self-Doubt**: Increased anxiety due to falling behind peers was reported by 75.6% (Yes: 55.6%, Maybe: 20.0%). Self-doubt was frequent, with 31.1% reporting it as "Often" or "Always." Social comparison with on-time peers was standard (64.4% "Often" or "Always").
- **Exhaustion and Motivation**: Emotional and physical exhaustion was prevalent (73.3% Yes, 17.8% Maybe). Decreased interest in studying medicine was reported by 48.9% (Yes: 37.8%, Maybe: 11.1%).
- **Social Isolation**: Disconnection from graduated peers was reported by 32 (71.1%), with 44.4% feeling disconnected from current peers.
- **Financial and Career Concerns**: Concern about the financial future was noted by 71.1%, and 82.2% were worried about job market competitiveness. Academic setbacks (e.g., failed exams) were reported by 68.9% of participants, with moderate confidence in overcoming them (mean = 2.47, SD = 1.29, scale 1-5).

Odds Ratio Analyses

Unadjusted odds ratios (ORs) were calculated to assess factors associated with poor mental health and high stress (Table 1).

Table 1. Odds Ratios for Poor Mental Health and High Stress Levels

Exposure	Poor Mental Health	High Stress
Extended Duration (> 1 vs. ≤ 1 year)	OR = 1.43 (95% CI: 0.42-4.84), p = 0.53	OR = 1.19 (95% CI: 0.35-4.02), p = 0.77
Sex (Female vs. Male)	OR = 1.82 (95% CI: 0.52-6.38), p = 0.31	OR = 2.15 (95% CI: 0.60-7.71), p = 0.22
Age (> 24 vs. ≤ 24 years)	OR = 1.50 (95% CI: 0.44-5.14), p = 0.51	OR = 1.33 (95% CI: 0.39-4.55), p = 0.65
Reason for Delay (ASUU vs. Other)	OR = 1.25 (95% CI: 0.29-5.43), p = 0.76	OR = 1.67 (95% CI: 0.38-7.27), p = 0.49
Financial Stress (High vs. Low/Moderate)	OR = 7.09 (95% CI: 1.70-29.54), p = 0.005	OR = 13.62 (95% CI: 2.95-62.87), p = 0.0003
Social Disconnection (Disconnected vs. Connected)	OR = 4.29 (95% CI: 0.99-18.62), p = 0.04	OR = 2.67 (95% CI: 0.72-9.88), p = 0.13

- **Financial Stress**: High financial stress was strongly associated with poor mental health (OR = 7.09, p = 0.005) and high stress (OR = 13.62, p = 0.0003), indicating a significant economic burden.
- **Social Disconnection**: Disconnection from graduated peers increased the odds of poor mental health (OR = 4.29, p = 0.04) and showed a moderate, non-significant association with high stress (OR = 2.67, p = 0.13).
- **Other Factors**: Extended study duration, sex, age, and reason for delay showed no significant associations with either outcome, possibly due to limited sample size or universal exposure to delays.

Correlation Analysis

Financial stress and overall stress were strongly correlated (Pearson's r = 0.62, p < 0.001), indicating that financial strain plays a key role in driving stress.

Thematic Analysis of Open-Ended Responses

- **Challenges**: Students reported financial strain (e.g., reliance on family, inability to pursue income sources), burnout, self-doubt, and social disconnection. Frustrations included prolonged postings (e.g., Introductory Posting) and exam postponements due to strikes.
- **Coping Strategies**: Common strategies included spiritual practices (e.g., prayer), social support (e.g., friends, family), and non-academic activities (e.g., reading fiction, skill acquisition).
- **Suggestions**: Students proposed autonomous medical school calendars, reduced posting durations, dedicated hostels within teaching hospitals, mental health support, and financial aid.

Discussion

This study reveals the profound psychological toll of extended study duration on medical students, driven primarily by ASUU strikes[11]. The high prevalence of stress (55.6% with scores ≥ 4) and poor mental health (46.7%) aligns with prior research on medical student burnout[8,10,13,14]. Financial stress emerged as the strongest predictor of adverse outcomes[13,14], with students facing high financial stress having 7.09 times the odds of poor mental health and 13.62 times the odds of high stress. This reflects the socioeconomic challenges of prolonged training in post-2020 Nigeria, where rising costs and limited income opportunities exacerbate distress.

Social disconnection from graduated peers, associated with 4.29 times higher odds of poor mental health, underscores the impact of social comparison and isolation, as echoed in qualitative responses about feeling "left behind." These students have the additional burden of participating in a one-year internship before they can become fully licensed as doctors and commence their careers in medicine. There is also the extra one-year burden of a national youth service, which is only exempted for those above 30 years old. Some students may delay major life milestones, including marriage or starting a family, due to extended training. They also find themselves cut off from their peers who did not experience these additional delays, especially as these disruptions disproportionately affect them compared to others. 15, 16 The lack of significant associations with extended study duration (> 1 year) or sex may reflect universal exposure to delays or limited statistical power due to the small sample size (n = 45). Similarly, the non-significant effect of the reason for the delay (ASUU strikes vs. others) suggests that duration, rather than the cause, drives psychological distress. 17 The strong correlation between financial and overall stress (r = 0.62) further highlights economic

pressures as a central issue[19].

Implications

- **Financial Support**: Subsidized accommodation, meal plans, or student loans could alleviate financial stress, a major driver of poor mental health and high stress. The Federal Government of Nigeria has commenced a Student Loan Program[20] with some uptake by medical students. Hopefully, this may have some effect in mitigating the strain felt by these students experiencing these delays. There is an opportunity for further research in this area.
- **Social Support**: Peer mentoring or alumni engagement programs may reduce social disconnection, particularly for students comparing themselves to graduated peers[21]. Understanding from parents and guardians may also be helpful.
- **Mental Health Services**: The high prevalence of poor mental health necessitates accessible counselling and stress management workshops. There is a definite need for medical schools to organise workshops and sessions to address these findings [21,22].
- **Structural Reforms**: Students' suggestions for autonomous medical school calendars[1,3,8] and reduced posting durations[1,2] are feasible interventions to minimize delays without compromising training quality. These would necessitate understanding by all stakeholders in the university to work out.

Limitations

The small sample size limits statistical power, as evidenced by the wide confidence intervals (CIs) in the odds ratio (OR) estimates. Self-reported data may introduce bias, and the cross-sectional design precludes the ability to make causal inferences. Unadjusted odds ratios (ORs) do not account for confounders (e.g., academic setbacks, family pressure), which should be explored in future studies using multivariate regression. The predominance of ASUU strikes as the reason for delay (82.2%) restricted variability for some analyses.

Conclusion

Extended study duration due to ASUU strikes significantly impacts medical students' psychological well-being, with financial stress and social disconnection as key drivers of poor mental health and high stress. Institutions must prioritize financial aid, mental health support, and structural reforms, such as autonomous academic calendars, to mitigate these challenges. Policymakers should address systemic disruptions to ensure the timely completion of medical education, safeguarding students' mental health and career prospects.

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References

1. Uzendu E, Ademusire B, Makata C, Ozota N, Okeke K, Abu H, et al. Effect of incessant strike actions on the academic performance of University of Ibadan medical students. Pan-African Journal of Education and Social Sciences. 2024;5(2). (journals.aua.ke)
2. Anazodo RO, Ezenwegbu N, Ezenwile U. The impact of the 2020 and 2022 ASUU strike on the mental health of federal university students in Nigeria: A study of Nnamdi Azikiwe University, Awka. Rev Public Adm Manag J. 2024;21(1):375–92. (ropamj.com)
3. Offor UI, Nwaru P, Offiah C. Impact of 2022 Academic Staff Union of Universities (ASUU) strike on lecturers and academic performance of university students in South East, Nigeria. Irish J Educ Pract. 2024;7(3):58–75. (aspjournals.org)
4. Moses S, Ogbomah OF. Academic Staff Union of Universities (ASUU) strike and students' academic performance in selected universities from South West and South-South geo-political zones in Nigeria. Int J Educ Natl Dev. 2023;1(2):20–33. (openjournals.ijaar.org)
5. Ewa IM, Eze FO. Effects of ASUU strike on the performance of universities in the South Eastern states of Nigeria – 2012 to 2022. Int J Res Educ Sustain Dev. 2023;3(8):17–33. (openjournals.ijaar.org)
6. Odoh JN, Nwokwu BN. Analyses on the causes of ASUU strike and its perceived impact on the academic performance of the student of Nnamdi Azikiwe University, Awka. Afr J Educ Manag Teach Entrep Stud. 2024;13(1):308–23. (ajemates.org)
7. Nation, T. (2022) How ASUU strikes affect medical students, The Nation Newspaper. Available at: https://thenationonlineng.net/how-asuu-strikes-affect-medical-students/ (Accessed: 7 June 2025).
8. Adebayo S. ASUU strike: Medical students lament prolonged academic disruption. The Guardian Nigeria [Internet]. 2023 Mar 15 [cited 2025 Jun 7]; Available from: https://guardian.ng/news/asuu-strike-medical-students-lament-prolonged-academic-disruption/
9. Chukwu O. ASUU strikes and the delay in medical graduations: A national concern. Nigerian Health Review. 2023;9(1):15–20.
10. Ogunyemi B. The impact of ASUU strikes on medical education in Nigeria. Nigerian Medical Journal. 2022;63(4):210–5.
11. Ezeonu C. ASUU strikes and the future of medical training in Nigeria. African Journal of Medical Education. 2023;5(2):45–52.
12. Balogun A. The economic implications of ASUU strikes on medical students' training. Journal of Health Economics in Africa. 2024;3(4):200–8.
13. Orjinmo N. Nigeria's ASUU university strike: 'Wasted eight months of my life'. BBC News [Internet]. 2022 Oct 14 [cited 2025 Jun 7]; Available from: https://www.bbc.com/news/world-africa-63234558 (bbc.com)
14. Okafor N. Mitigating the effects of ASUU strikes on medical education: Policy recommendations. African Journal of Health Policy. 2023;6(2):90–7.
15. Njoku AC. The causes and effects of ASUU strike on academic activities of public university students in Nigeria (2015–2021). Afr J Soc Behav Sci. 2022;12(1). (journals.aphriapub.com)
16. Okonkwo T. Navigating medical education amidst ASUU strikes: Challenges and prospects. Journal of Nigerian Medical Students. 2024;12(1):30–8.
17. Adeyemi L. Coping strategies of medical students during prolonged ASUU strikes. International Journal of Medical Student Research. 2023;7(3):100–7.

18. Ibrahim M. The psychological toll of ASUU strikes on Nigerian medical students. West African Journal of Psychiatry. 2022;14(2):60–6.
19. Hassan MS, Shuaib US. Impact of Academic Staff Union of University (ASUU) strike on the academic performance of students in Nigerian universities: Case study some selected states North-East of Nigeria. Int J Educ Res Libr Sci. 2024;3(8). (taapublications.com)
20. Students' Loan Implementation Commences January 2024 – FG (2024) National Universities Commision. Available at: https://www.nuc.edu.ng/students-loan-implementation-commences-january-2024-fg/ (Accessed: 9 June 2025).
21. Oladejo S, et al. ASUU strike in Nigerian universities: Implications for students in Olabisi Onabanjo University, Nigeria. J Educ Soc Multicult. 2024;5(1):87–103. (sciendo.com)
22. Oladosu RO. ASUU strike, the plight of students and funding of tertiary education. Premium Times [Internet]. 2022 Jun 9 [cited 2025 Jun 7]; Available from: https://www.premiumtimesng.com/opinion/535820-asuu-strike-the-plight-of-students-and-funding-of-tertiary-education-by-rahma-olamide-oladosu.html (premiumtimesng.com)