

Title: The Impact of the Sudan Conflict on Urology Training: A National Study of Challenges, Adaptations, and Trainee-Led Pathways to Resilience

Introduction for Participants:

This survey is part of a research study aimed at understanding the impact of the ongoing conflict on urology training in Sudan. Your participation is voluntary and greatly appreciated. All responses will be anonymized and kept confidential.

Section A: Demographics and Displacement

1. **Age:** _____ years
2. **Gender:**
 - ☐ Male
 - ☐ Female
3. **Current training level:**
 - ☐ Intern
 - ☐ Resident
 - ☐ Fellow
4. **Specialty:**
 - ☐ Urology
 - ☐ General Surgery
 - ☐ Pediatric Surgery
5. **How many years have you been in your training program?** _____
6. **What is your current location (State)?** _____
7. **Have you been displaced from your primary training center due to the conflict?**
 - ☐ Yes
 - ☐ No

Section B: Mental Health and Support Systems

(Please select one option for each question unless otherwise specified)

8. **The war has had a significant negative impact on my mental health and well-being.**
 - ☐ Strongly Disagree
 - ☐ Disagree
 - ☐ Neutral
 - ☐ **Agree**

- Strongly Agree
- 9. **I would characterize my current level of training-related stress as:**
 - Mild
 - Moderate
 - **Severe**
 - Very Severe
- 10. **My supervisors provide adequate support amid the current challenges.**
 - Strongly Disagree
 - Disagree
 - Neutral
 - **Agree**
 - Strongly Agree
- 11. **I feel supported emotionally by my colleagues and faculty.**
 - Strongly Disagree
 - Disagree
 - Neutral
 - **Agree**
 - Strongly Agree
- 12. **How would you rate your family support during this period?**
 - Very Poor
 - Poor
 - Neutral
 - Good
 - Excellent
- 13. **How often do you communicate openly with colleagues about the effects of the war on your training?**
 - Rarely
 - Sometimes
 - Often
 - Usually
 - Always
- 14. **Have you accessed mental health support or counseling services since the conflict began?**
 - Yes
 - No

Section C: Training Quality and Surgical Exposure

15. The war has affected my access to hands-on training opportunities.

- Not affect
- Somehow affect
- Neutral
- Affect
- Significantly affect

16. I am able to develop the necessary skills in urology despite the challenges caused by the war.

- Strongly Disagree
- Disagree
- Neutral
- **Agree**
- Strongly Agree

17. The conflict has impacted the number of surgical procedures I observe or participate in.

- Strongly Disagree
- Disagree
- Neutral
- **Agree**
- Strongly Agree

18. I have experienced a change in the types (diversity) of surgical cases I encounter due to the conflict.

- Strongly Disagree
- Disagree
- Neutral
- **Agree**
- Strongly Agree

19. How would you rate the overall quality of instruction you are currently receiving?

- Very Poor
- Poor
- **Average**
- Good
- Excellent

20. How would you rate your current access to mentorship from senior urologists?

- Very Poor
- Poor

- Average
- **Good**
- Excellent

Section D: Resources and Infrastructure

21. It is difficult to access essential training resources (e.g., textbooks, surgical supplies).

- Strongly Disagree
- Disagree
- Neutral
- **Agree**
- Strongly Agree

22. How often do you utilize technology (e.g., telemedicine, online modules) to maintain training standards?

- **Rarely**
- Sometimes
- Often
- Always

23. How would you describe the stability of the infrastructure at your primary training environment?

- Very Stable
- Stable
- **Average**
- Unstable
- Totally Unstable

24. Has your training program undergone any formal curriculum changes due to the conflict?

- Yes
- No

25. Have you utilized alternative forms of training (e.g., online modules, virtual workshops)?

- Yes
- No

26. If yes, how effective have these remote learning sessions been?

- Very Ineffective
- **Ineffective**
- Neutral

- Effective
- Very Effective

27. The war has affected my ability to attend external conferences or workshops.

- Strongly Disagree
- Disagree
- Neutral
- **Agree**
- Strongly Agree

Section E: Suggestions for Improvement

**28. What are your suggestions to improve urology training during this crisis?
(Please select up to three)**

- Enhance online and remote education
- Secure funding for surgical supplies and equipment
- Modify the curriculum to address war-related challenges
- Provide more psychological support services
- Establish rotations in more stable regions
- Other (please specify): _____

References for Questionnaire Development

The design of this questionnaire was informed by constructs and domains from the following established sources:

1. **Mental Health & Burnout:**

- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual review of psychology*, 52(1), 397-422.
- Alhaffar, B. A., & Abbas, G. (2019). The prevalence of burnout syndrome among resident physicians in Syria. *Journal of Occupational Medicine and Toxicology*, 14, 31.

2. **Surgical Training Disruption:**

- Azeem, M., et al. (2024). Global Impact of the COVID-19 Pandemic on Urological Surgery Training: A Systematic Review and Meta-analysis. *European Urology Open Science*, 59.

3. **Health System & Infrastructure in Conflict:**

- Dafallah, A., Elmahi, O., Ibrahim, M., et al. (2023). Destruction, disruption and disaster: Sudan's health system amidst armed conflict. *Conflict and Health*, 17, 43.
- World Health Organization. Sudan emergency. Retrieved from: <https://www.who.int/emergencies/situations/sudan-emergency>