

# Seeking Self-Care Remedies For Relieving Dental Pain During The Sudan Conflict

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## I. Introduction

The conflict in Sudan has now reached its third year, with no indication of a resolution in sight. It has had a devastating effect on the nation's healthcare system and infrastructure, leaving approximately 65% of the population without access to medical services. Over 80% of hospitals are non-functional, and one in three hospitals is out of service due to disruptions in the movement of patients and healthcare workers. Safety concerns and the instinct for self-preservation have led to the displacement of around 9.1 million people, both internally and externally, according to the World Health Organization (WHO). [1] Before the outbreak of the conflict, there were already several obstacles to providing effective oral healthcare services, and the situation has worsened significantly since then. [2]

Dental pain is a prevalent and often severe issue that is hard to overlook. It usually arises from irritation of the nerves in the affected area. The anatomy of the orofacial region is intricate and distinctive, and dental pain can stem from either the tooth itself or its supporting structures. [3]

Since ancient times, people in Sudan have turned to folk medicine and various traditional treatments to relieve dental pain, especially in rural communities. Several factors lead individuals to choose self-care remedies, with the most significant being limited access to dental care, the inability to afford treatment, personal choice, fear of dental procedures, and feelings of insecurity due to internal displacement caused by ongoing conflict. [4]

Sudan's healthcare system is on the verge of collapse. With the rainy season approaching, the nation is confronted with a dire combination of disease outbreaks, malnutrition, and failing services, all while humanitarian access is severely limited and financial resources for health are dwindling. [1] The conflict has caused a significant shortage of vital medical supplies and a complete breakdown of health resources, preventing medical centers from obtaining their fundamental necessities, which has resulted in a lack of life-saving medications and equipment. Additionally, there has been a dramatic increase in economic inflation and prices, further straining the country's finances. [5]

In this commentary, we seek to underscore the value of self-care techniques for managing dental pain. We also address the difficulties encountered by oral healthcare services amid the conflicts in Sudan and suggest possible solutions to enhance the current circumstances.

## Challenges Encountered by Sudan's Oral Health Sector amidst Conflict

The current conflict has worsened the already existing problems in Sudan's healthcare system. Reports from the World Health Organization (WHO) indicate that hospitals and primary care facilities have been attacked during this violent conflict, leading to many of them being shut down. There is a notable lack of both general dentists and specialists, largely because of concerns about potential attacks in certain locations. Moreover, the total lack of security on the roads makes it very difficult to travel to work. Additionally, many dentists have either moved to other countries or been forced to relocate to different areas within Sudan. The Lack of medicine and supplies of the hospital and clinics is another major challenge, most of the dental supplies are being imported from outside and the conflict has interrupted the trade movement and led to economic meltdown. Another reason is difficulty in transportation of dental supplies between the various states without the frightfulness of being subjected to armed robbery or material damage due to rain and floods in some areas. [2, 6]

## Causes of the High Tendency toward Self-Care Remedies

Delaying dental appointments and turning to alternative treatments for tooth pain is affected by various factors. Given the current conflicts and difficulties in the country, dental health services are severely disrupted, leading to widespread distress from restricted access to dental and medical facilities. Many of these health centers are currently non-operational, causing numerous people to seek non-medical solutions as alternatives. [6]

Dental anxiety is a major factor that leads many individuals to skip dental appointments. Various studies show that fear of dental procedures is a widespread concern, with a higher occurrence reported among females compared to males. [14, 15]

The threat of famine hangs over the people of Sudan, alongside a decline in currency value and rising prices for goods. Consequently, obtaining dental care has turned into a luxury due to the high costs. Research shows that 22.4% of people turn to self-treatment because of the steep prices of dental services. [1, 4]

Personal preference or viewpoint is a key factor that leads some people to seek out self-care solutions. This could be due to favorable experiences in the past, suggestions from others who have tried these remedies, or various other influences. Other reasons may be attributed to high medication costs, insufficient health services, to laziness and time constraints. [12] Some individuals may feel excited or are swayed by societal trends, social media, pharmacists, or even their own relatives to adopt self-care practices. [15]

### **Methods for Alleviating Dental Pain**

In Sudan and various African nations, natural or herbal medicine enjoys significant popularity, with around 80% of the African community using these products. [7] A study focused on the Sudanese population found that clove is the most commonly used herbal remedy, making up 33.8% of the consumption. [4] Additionally, it is believed that cloves contain eugenol and other polar compounds that can effectively alleviate dental pain due to their pain-relieving qualities. [8, 9]

Over-the-counter (OTC) medications are considered an important self-care option for various reasons: they offer quick pain relief, are affordable, and do not need a dentist's prescription. Many people choose non-steroidal anti-inflammatory drugs (NSAIDs) and paracetamol as short-term solutions for sudden or intense pain until they can see a dentist. [10]

Herbal remedies can be employed either on their own or alongside other techniques to ease dental discomfort. Various substances such as clove oil, peppermint, salt, vanilla extract, onions, guava leaves, ice packs, garlic, tea, tobacco, acetone, battery acid, and more are also used to help reduce pain. [11]

Although these remedies can have calming effects, their excessive use can lead to various issues. Reported side effects include burning sensations in the mouth, allergic reactions or resistance to specific medications, discoloration of teeth, and a decrease in pulp vitality. [12]

### **The commonly used methods utilized in traditional medicine**

The table below displays different self-care remedies used in managing toothaches. [13]

| Self-care remedy                         | Effect                                              |
|------------------------------------------|-----------------------------------------------------|
| Clove                                    | antibacterial & pain relieving properties           |
| Thyme, Garlic, Sage, Ginger, Anise seeds | pain relieving properties                           |
| Cauliflower                              | antibacterial, antiviral, and antifungal properties |
| Honey                                    | antibacterial and antiviral properties              |
| Analgesic drugs                          | pain relieving properties                           |
| Antibiotics                              | antibacterial properties                            |
| Tobacco                                  | pain relieving properties                           |
| Saltwater Gargles                        | antibacterial properties                            |
| Peppermint essential oil                 | numbing properties                                  |
| Ice packs                                | relieve dental pain and reduce swelling             |

## **II. Recommendations**

The impact of the war on the health sector is clear. Nevertheless, health officials need to work towards resuming operations in certain facilities to guarantee that at least one healthcare center is operational in every region. It is also crucial to seek medical assistance from humanitarian organizations to secure essential medical supplies and medications. Moreover, introducing teledentistry through specific applications will allow patients to consult with dentists online. [16] We are making every effort to improve internet connectivity and banking services to alleviate the cash shortage, enabling people to buy necessary items like food and medicine. Additionally, we plan to inform the community about the possible side effects of long-term use of self-care treatments.

## **III. Conclusion**

Sudanese people lives in the worst circumstances, the lack of the basics of life and the almost complete destruction of the health sector including dental health care, the alternative in managing dental pain is self-care remedies

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### **Conflict Of Interest**

The authors declare no competing interest.

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### **References:**

- [1]. Sudan Crisis. <https://www.emro.who.int/sdn/crisis/index.html>. Published 12 July 2024. <https://www.emro.who.int/sdn/crisis/index.html> (Access 13 May 2025)
- [2]. Elhadi YAM, Siddig RE, Awooda EM. Oral Health In Sudan: The Current Situation During COVID-19 Pandemic. *Pan Afr Med J*. 2022 Feb 8; 41:111. Doi: 10.11604/Pamj.2022.41.111.32693. PMID: 35465374; PMCID: PMC8994452.
- [3]. Renton T. Tooth-Related Pain Or Not? Headache. 2020 Jan; 60(1):235-246. Doi: 10.1111/Head.13689. Epub 2019 Nov 1. PMID: 31675112.
- [4]. Ahmed BM, Ali IA, Siddiq FM, Muhamadi KA, Aljezooli MH. Self-Care Remedies Used To Relieve Dental Pain Among Sudanese In Khartoum State, Sudan. *International Journal Of Dental Sciences And Research*. 2017; 5(4):88-92. Doi: 10.12691/Ijdsr-5-4-2.
- [5]. Khogali A, Homeida A. Impact Of The 2023 Armed Conflict On Sudan's Healthcare System. *Public Health Chall*. 2023; 2:E134. <https://doi.org/10.1002/Puh2.134>.
- [6]. Musa MK, Eshun G, Modber MAA, Et Al. Public Health Consequences Of Armed Conflict In Sudan In The Face Of Global Donor Fatigue. *Public Health Chall*. 2024; 3:E156. <https://doi.org/10.1002/Puh2.156>.
- [7]. Maroyi A. Traditional Use Of Medicinal Plants In South-Central Zimbabwe: Review And Perspectives. *J Ethnobiol Ethnomed*. 2013; 9:31.
- [8]. Kamkar Asl M, Nazariبورun A, Hosseini M. Analgesic Effect Of The Aqueous And Ethanolic Extracts Of Clove. *Avicenna J Phytomed*. 2013 Spring; 3(2):186-92. PMID: 25050273; PMCID: PMC4075701.
- [9]. Mandorah, A., Wali, O., Alqais, M., Alsaegh, L., Fatani, B., Alomar, Z., Kabli, R., Binsalman, R., Alqubali, M., Albalawi, A., Abdullah, A., Alshahrani, F., Alqahtani, A., Alqahtani, R. And Alzahrani, K. T. (2021) "Using Herbal Medicine For Dental Pain In Saudi Arabia: Prevalence And Knowledge Assessment", *Journal Of Pharmaceutical Research International*, 33(57B), Pp. 69–77. Doi: 10.9734/Jpri/2021/V33i57b34030
- [10]. Koh SWC, Li CF, Loh JSP, Wong ML, Loh VWK. Managing Tooth Pain In General Practice. *Singapore Med J*. 2019 May; 60(5):413. Doi: 10.11622/Smedj.2019044. PMID: 31187144; PMCID: PMC6535452.
- [11]. Vargo RJ, Warner BM, Potluri A, Prasad JL. Garlic Burn Of The Oral Mucosa: A Case Report And Review Of Self-Treatment Chemical Burns. *The Journal Of The American Dental Association*. 2017 Apr 5. Available: <http://www.sciencedirect.com/science/article/pii/S0002817717302052>
- [12]. Ahmed BM, Ali IA, Siddiq F, Et Al, Self-Care Remedies Used To Relieve Dental Pain Among Sudanese In Khartoum State, Sudan. *IJDSR* 2017;5(4):88-92.
- [13]. Hassan S A, Bhateja S , Prathyusha F, Traditional Methods For Treating Dental Problems. *IP J Surg Allied Sci* 2020; 2(3):72-76.
- [14]. Silveira ER, Cademartori MG, Schuch HS, Armfield JA, Demarco FF. Estimated Prevalence Of Dental Fear In Adults: A Systematic Review And Meta-Analysis. *J Dent*. 2021 May; 108:103632. Doi: 10.1016/J.jdent.2021.103632. Epub 2021 Mar 9. PMID: 33711405.
- [15]. Agbor MA, Azodo CC. Self-Medication For Oral Health Problems In Cameroon. *International Dental Journal*. 2011 Aug 1; 61(4): 204-9.
- [16]. Awooda, E. M., And R. E. Siddig. "Tele-Screening, Triaging Of Dental Patients, And Reopening Of Dental Services During SAR-Cov2 Pandemic". *Sudan Journal Of Medical Sciences (SJMS)*, Vol. 15, No. 4, Dec. 2020, Pp. 371–377, Doi:10.18502/Sjms.V15i4.8159.