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Geriatric Oral Health in Rural India: Care Options during the COVID-19 Pandemic

Aditi Tomar[1*]

[1]Department of Health and Kinesiology, Texas A and M University, College Station, Texas, USA.

Author's contribution

The sole author designed, analyzed, interpreted and prepared the manuscript.

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Commentary

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ABSTRACT

The long-existing prevalence of maladaptive behaviors, particularly tobacco consumption and smoking continue to be a public health concern in rural India. The COVID-19 pandemic has engendered a state of prolonged home-confinement and social isolation across the globe. The bio-psychosocial changes associated with aging impact the overall wellbeing of older individuals. In addition to impaired physical health and cognitive ability, a vast proportion of older adults in rural India suffer from sub-optimal dental and periodontal health. Dental workers are recommended to thoroughly evaluate the patient's medical history, underlying conditions and overall susceptibility COVID-19. Fostering preventive dental care among the geriatric, rural population may delay progression of oral infections, and prevent life threatening complications. Efforts towards advancing preventive dental care must persevere, even after the pandemic ceases.

Keywords: Oral health; elderly; COVID-19; rural India.

1. INTRODUCTION

The COVID-19 pandemic has engendered a state of prolonged home-confinement and social isolation across the globe [1]. In India, the first COVID-19 was reported on January 30th 2020, and soon after nationwide stay at home orders were announced [2]. Older adults, especially

**Corresponding author: Email: aditi2408@tamu.edu;*

those affected by chronic conditions (lung disease, asthma, obesity, diabetes, liver and kidney diseases) pose a disproportionately heightened threat to COVID-19 [3]. Although SARS-Cov-2 may impact multiple organs, its effect on the respiratory tract may result in life-threatening complications, such as severe pneumonia [4]. With restrictions in mobility and temporary halt in non-emergency dental services during the nationwide lockdown, preexisting oral health challenges among the rural, elderly populace in India are likely to exacerbate. The long-standing issue of poor oral health in the rural parts of India has been reported in numerous studies. An epidemiological study conducted in rural Delhi reports caries level at 100% among elderly subjects [5]. Likewise, another study among the elderly population in rural Maharashtra depicts 76.4% prevalence of dental caries; and median Decayed, Missing, and Filled teeth (DMFT) index of 12 [6]. Reduced access to dental care may resultantly, diminish the overall health and wellbeing of older adults residing in rural India [7,8].

Approximately 80% of geriatric population in India, resides in rural settings [8]. Poor oral health status among the rural masses may be significantly attributed to the prominent urban-rural divide with regard to availability and utilization of dental resources [8]. Alongside, the long-existing prevalence of maladaptive behaviors, particularly tobacco consumption and smoking continue to be a public health concern in rural India, where tobacco is rampantly consumed in various forms such as *bidi, gutka, and khaini* [9]. Collectively, inadequate access to oral health resources, deleterious oral behaviors and compromised preventive dental care (brushing, flossing and routine dental checkups), put the rural population at a much higher risk of developing oral diseases. Socio-economic factors such as poverty, illiteracy, and non-availability of dental facilities largely contribute to the long-standing state of poor oral hygiene among the rural populace [10]. In addition, due to the high cost of dental services, individuals living in rural areas often seek treatment from quacks who are unqualified, untrained individuals fraudulently practicing dentistry at lower rates [10]. Quacks claim deceitful expertise in administering dental treatment ranging from prosthetics such as simple/partial dentures, to invasive practices such as tooth extraction [10]. Such malpractice, under non-sterile conditions may potentially lead to life-threatening complications [11].

The bio-psychosocial changes associated with aging impact the overall wellbeing of older individuals. In addition to impaired physical health and cognitive ability, a vast proportion of older adults in rural India suffer from sub-optimal dental and periodontal health [12]. Therefore, it is critical to address the unmet oral needs of the marginalized, elderly population residing in rural India. Confronting age-related oral conditions such as edentulism (tooth loss), xerostomia (dry mouth), gingivitis (gum inflammation), dental caries, and oral malignancies [13], becomes considerably more challenging amid the socioeconomic challenges prevalent in rural India.

The nationwide lockdown in India has led to temporary restrictions in mobility and suspension of transportation services [14]. Aerosols have been reported as a prominent source of SARS-CoV-2; therefore majority dental facilities have temporarily halted elective procedures, giving precedence to emergency cases [15]. Interruption in dental services may have inadvertently widened the gap to dental care access, especially for the older, Indian population residing in remote areas. Since poor periodontal health may exacerbate systemic illnesses, older adults suffering from underlying conditions may face grievous health consequences, if left untreated for oral infections [16].

At this juncture, it is important we recognize the life-threatening implications of delayed dental procedures among older individuals living in the rural segments of India. As the biopsychosocial burden of COVID-19 continues to unfold, approaches aimed at strengthening gerontological social work must be duly enforced [17]. First, as dental healthcare facilities begin to resume elective procedures, precautions for minimizing infection control to both patients, and dental professionals should be strictly implemented in dental settings. Older adults with underlying conditions pose disproportionately heightened risk to SARS-CoV-2 infection, necessitating the need for implementing treatment plans involving fewer visits and minimum use of aerosol-generating procedures. Second, given that majority older adults in rural India live in family settings, educating family members about the life-threatening implications of poor oral health may impede health complications among older individuals. Employing local caregivers and health educators to spread community awareness about the association between oral health and overall

being, is likely to be conducive, especially in the strong cultural, family-oriented context of India. Third, implementing policy interventions surrounding dental care is another potential, cost-effective solution towards improving the disparate access to dental services among the older, rural population. Dental and policy experts in India have underscored the urgency to implement universal oral health coverage [18]. Addition of preventive dental services to the national, Ayushman Bharat or Pradhan Mantri Jan Arogya Yojana, may be a viable step towards supporting oral health, and overall wellbeing of the socio-economically disadvantaged communities [18,19]. Fourth, introducing remote dental education via tele dentistry is another potential means of fostering preventive dental care. By restricting interpersonal contact, remote care safeguards older adults from contracting infections. However, in view of the prevalent digital divide in India, older individuals in rural areas are less likely to own an electronic device, and/or have the adeptness to operate [20]. Accordingly, not-for-profits, social workers and community service providers should proactively lead initiatives, geared at equipping the rural geriatric community with remote care facilities. Fifth, expanding mobile-health clinics and portable dental services across rural India is a viable means of resolving disparate oral health needs among the older populace. Apart from being more cost-effective than regular dental clinics, mobile dental services offer the advantage of overcoming barriers such as mobility, transportation, and cost. As a result, physically and/or cognitively impaired older individuals, residing in rural areas may be especially benefitted. In the same vein, dental colleges and practitioners should collaboratively organize low-cost dental camps and outreach programs to serve the unmet oral needs of the marginalized, rural, older community in India. Lastly, dissemination of the much-anticipated COVID-19 vaccine must be prioritized for the geriatric population in order that they can avail dental treatment, without fearing infection spread.

2. CONCLUSION

It is conjectured that the pre-existing oral health status of the marginalized, geriatric populace may have exacerbated during the stay-at-home orders. Dental professionals are expected to strictly adhere to infection control protocols, as they resume practice. Alongside, dental workers are recommended to thoroughly evaluate the patient's medical history, underlying conditions and overall susceptibility COVID-19. While treatment guidelines are uniformly applicable across all in-office dental visits, specialized attention needs to be directed while administering dental care to the marginalized, older populace. Fostering preventive dental care among the geriatric, rural population may delay progression of oral infections, and prevent life threatening complications. Lastly, efforts towards advancing preventive dental care must persevere, even after the pandemic ceases.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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