

Healthcare accessibility in the prison environment: Oral health

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INTRODUCTION

The oral health of prisoners is an important but often neglected component of overall health and well-being in prisons. Existing disparities between male and female prisoners, as well as the numerous factors contributing to dental problems, present healthcare systems with unique challenges in providing timely and dignified healthcare. Due to overcrowding, limited financial resources and increased risk of infectious diseases among prison populations, the impact of preventive activities on physical and mental health becomes particularly important. Most prisoners return to society after serving their sentence, which makes the care of oral health in prisons also important for the entire healthcare system [1-2].

AIM

The article aims to highlight the importance of oral health among prisoners, a population that often faces significant disparities in access to dental care. The authors emphasize the need for comprehensive planning of oral hygiene care in the prison environment, as well as the development of gender-specific oral care products to address the higher incidence of oral diseases among female prisoners.

MATERIALS AND METHODS

A systematic literature search was conducted in the PubMed, Embase, and Cochrane databases from inception to January 2024 to identify relevant studies. The search terms included "oral health", "prisoners", "dental care", "incidence", and related keywords. No language re-

strictions were applied. Studies were included if they reported on the oral health status, dental care behaviors, or interventions targeting oral health among prisoners. Studies focusing on the general population or other specific patient groups were excluded. Two reviewers independently screened titles, abstracts and full-text articles for eligibility. Disagreements were resolved by consensus or consultation with a third reviewer. Data extraction was performed by one reviewer and checked by a second reviewer. The following information was extracted: study design, country, sample size, participant characteristics, oral health outcomes, and key findings.

REVIEW AND DISCUSSION

ORAL HEALTH STATUS IN PRISONS

There is a higher incidence of oral diseases among prisoners (25.90%) compared to the general population (12.4%). Moreover, it was shown that female prisoners suffered from diseases of the oral cavity and especially mucous membranes significantly more often (36.19%) compared to the general population (24.70%) [3]. Oral disorders affect 1/4 of prisoners, which confirms the universality of this problem. A systematic review of 21 studies by Kumar et al. confirmed the higher incidence of oral diseases in the prison population compared to the rest of society, attributing it to inappropriate oral hygiene tools and insufficient dental knowledge and care among inmates [4]. The authors agree that the key actions to improve the health of prisoners are increasing access to a dentist and promoting hygiene awareness. In a broader perspective, health problems, including dental

problems of prisoners, are considered not only a problem of the prison system, but also a social problem, given the eventual return of most of these people to society [5].

In the study by Yang et al. the incidence of oral disease in prisons was higher in women, which was attributed to hormonal differences affecting oral microbiota and salivary gland function. Recognizing gender differences in oral health, the study highlights the importance of developing gender-specific oral care products. Highlighting the social impact, it said it was essential to address oral health issues in prisons, emphasizing the need to include oral health services for prisoners in national health care to safeguard their well-being upon reintegration into society [6].

Healthcare systems should provide both timely and equitable dental services for prisoners, creating an opportunity for comprehensive planning of oral hygiene care in the prison environment. The incidence of dental caries among prisoners is much higher than in the general population (prevalence of 77%). This is consistent with previous research indicating the need to pay close attention to oral health problems. Differences in the advancement of caries lesions among prisoners were observed depending on age and gender, with the number of teeth removed due to caries and teeth with fillings increasing significantly with the age of prisoners. This was also higher among women. The severity of periodontal disease and caries was directly proportional to the length of imprisonment, which indicates the negative impact of long waiting periods for treatment and insufficient infrastructure in prisons on oral health [7-8]. Studies of people in contact with penitentiary institutions have shown that the following are significantly more common in the prisoner population [2]: high incidence of caries and periodontal diseases [9], ranging from 57% to 67% [10-11], poor oral health and incorrect eating habits [1], these factors contribute to the deterioration of the quality of life of inmates [12-13].

CHALLENGES IN PROVIDING DENTAL CARE TO PRISONERS

Currently, approximately 11 million people around the world are incarcerated in prisons every day [14]. Overcrowded prisons worsen health problems, and long-term isolation contributes to prisoners' poor oral health. The complex relationship between general health and oral diseases is due to the multifactorial nature of systemic diseases that directly or indirectly affect oral health. Factors such as smoking, alcohol, drug use and limited access to quality health care services contribute to the disastrous oral health of inmates. Eliminating inequalities in this area and promoting

preventive measures in the primary health care system are crucial in mitigating the long-term consequences of oral diseases among prisoners, both during imprisonment and after release, which emphasizes the need for comprehensive dental care in prison conditions [15].

A study of the Minas Gerais prison population in Brazil analysed the self-assessment of the impact of oral health on the quality of life of female prisoners. The factors with the greatest influence included: psychological discomfort (50.5%), physical pain (40.4%) and unfavourable social situation (17.2%). The number of dental consultations, self-assessment of general health and ethnicity were also analysed. The study found significant associations between oral health and mental health, highlighting the prevalence of symptoms of anxiety (63.6%) and depression (42.4%) among female prisoners. The study highlighted the complex relationship between incarceration, mental health, and oral health, highlighting the need to develop comprehensive health policies in prison settings [16-17].

The patient himself is often a challenge for the dentist. Dental tools can be used as weapons or means of self-harm. Searching through medical waste, consulting with inmates, and checking the movement of patients in the clinic are typical procedures in prisons that contribute to limiting the possibility of admitting many patients per day. Arranging dental appointments for prisoners is like civilian practices, with the same fear of dental treatment for both groups of patients. There are also additional factors that hinder inmates' access to treatment, such as arrest warrants or a lack of staff supervising the patient during treatment. Prisoners, similarly, to the general population, most often refrain from dental treatment after being prescribed antibiotics that reduce pain or due to the prolonged waiting time for an appointment, which may intensify, especially in this group of patients, often suffering from psychiatric problems, aggressive behaviour resulting from impatience [18].

INITIATIVES AND PROGRAMS FOR PRISONERS' ORAL HEALTH

Strategies based on interviewing and encouraging dental check-ups result in positive motivational and behavioural changes. A motivational technique adapted to the conditions of inmates' perception may be a promising tool used to improve the oral health of prisoners. In a research Cascaes et al . even a single motivational session brought positive effects, which is particularly important due to the transient nature of prisoners' stays and the resulting lack of possibility of long-term action [19].

In a cross-sectional study conducted in a Pakistani prison, researchers examined the dental care behaviours of 225 adult prisoners. In the study group, urban residents had a higher frequency of dental visits, while more than half of the prisoners had never visited a dentist. The main motivation for visiting the dentist was pain or discomfort in the mouth. Study participants from rural areas had statistically significantly fewer teeth (from 10-19 teeth) than inmates from urban areas who regularly had check-ups. Living in large cities and using dentures influenced regular visits. The study suggests the need to improve access to dental care in rural areas, as well as education on the importance of regular check-ups for incarcerated people [20- 21].

TELEMEDICINE AND TECHNOLOGICAL SOLUTIONS

The growing global prison population is accompanied by an increased incidence of health problems among prisoners compared to the general population. This includes a significant increase in mental health disorders - one in seven prisoners in Western countries suffers from mental illness. Moreover, infectious diseases are common in prisons, especially those caused by blood-borne viruses and sexually transmitted diseases [22]. Despite various service delivery models, access to timely health care in prisons remains a challenge, and factors such as organizational barriers and a shortage of medical staff contribute to limited access to health care while serving a sentence [23].

In France, prisoners in prisons are obliged to undergo dental examinations, but only half of them are willing to undergo regular preventive care. The possibility of potentially improving oral hygiene in prisons was investigated using telemedical consultations, during which dentists remotely assess patients' dental needs. The study, conducted in the form of an experiment, showed that in dental emergencies, the diagnosis made remotely by a dentist differs slightly from that made in person. Unfortunately, it should be emphasized that dental teleconsultation in cases of preventive care is characterized by a significant percentage of incorrect diagnoses, amounting to as much as 63%. France's overcrowded prison system faces challenges in providing adequate dental care, with only 52% of prisons offering required check-ups due to a shortage of dentists. Despite the high demand for dental consultations among inmates, there are no dentists willing to work in prisons. Numerous organizational problems result in limited access and failure to arrange visits to penitentiary facilities. It is recommended that oral health consultations be included in mandatory medical examinations for pris-

oners and telemedicine, in particular teleconsultations, could play a key role in addressing the challenges and improving dental care for prisoners, at least in the case of emergencies [24].

Telehealth, defined as the delivery of health services remotely using information and communication technologies, may address these issues, although evidence of its effectiveness with prisoners has not yet been assessed. Comparing the efficiency of teleconsultation and a conventional visit, research indicates long-term cost reduction in favour of telemedicine. Patient satisfaction with remote consultations is generally high, especially in psychiatry, dermatology, and multidisciplinary services [25]. Although patient satisfaction shows a positive impact on frontline telehealth in prisons, long-term follow-up and ongoing research are needed to evaluate clinical outcomes and cost-effectiveness. Successful implementation requires consideration of many factors, acceptance of teleconsultation among interested parties, and a comprehensive strategy that considers local factors and barriers [26].

HEALTH POLICY

Most governments do not see oral health as important. It was not until 2000 that Deputy Secretary of Health David Satcher recognized oral health challenges as a "silent epidemic" in the first-ever report on the subject [27]. Public health initiatives, such as Healthy People 2020, have not addressed the oral health needs of people in prisons. This is a significant problem because the approximately seven million Americans under prison jurisdiction face significant disparities in access to dental care [28-29]. Prisoners remain an "invisible" population in the system despite their right to health care. The authors emphasize the need to include oral health in clinical guidelines and improve the equipment infrastructure [30]. For the dental team to provide efficient and effective dental services in a prison setting, they must have a comprehensive knowledge of prison structures and processes. This requires effective communication and cooperation between prison managers, prison service and security staff [31-32]. It is recommended to involve dental hygienists and therapists working with prison health care staff when planning and conducting oral hygiene initiatives. It is essential to demonstrate professional standards through peer review, assessment, and clinical audit [33]. The role of public policy in shaping access to dental care is crucial and highlights the multi-faceted impact of decision-makers decisions on the quality of health care and the overall effectiveness of the system [34].

CONCLUSIONS

In prisons, oral health is an often-overlooked aspect of prisoners' overall health and well-being. The key factors contributing to the prevalence of dental problems in prisons are lifestyle, improper diet, stimulants, limited access to dental treatment and low motivation of this group of patients for control and prevention. Challenges related to providing adequate dental care in prisons include mainly prison overcrowding and limited human resources among medical staff who are reluctant to work in penitentiary facilities. Programs aimed at improving prisoners' oral health,

including motivational interviews, promoting oral hygiene and preventive care, may help improve the poor situation. Telemedicine can be considered as a potential way to partially solve the problems related to difficult access to health care in prison conditions. Health policy changes are key elements in improving the oral health of prisoners, highlighting the need for a comprehensive approach involving policymakers, health professionals and community organizations to achieve lasting change. It is essential to recognize and address the oral health needs of this often overlooked and excluded population.

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CONFLICT OF INTEREST

The Authors declare no conflict of interest

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