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## Oral health and its effect on mental health of prison inmates: A review and experience

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#### **Abstract**

The idea of justice used to be retributive and sought to exact the worst of punishments upon convicts. However, with universal human rights, the concept of justice and tenets of humanity have so evolved internationally that they seeks reformation of outlaws and accord basic human dignity to them even during incarceration. Healthcare, inclusive of care for dental hygiene, constitutes an integral part of such human rights but this subject continues to be neglected in a lot of modern prison systems, leading to absolute dereliction of dental care. This study seeks to evaluate the provisions of dental care in Indian prison system through the author's own experience from volunteering at an Indian jail and a series of interviews of Jail Superintendent, a prison inmate and an NGO dedicated to rehabilitation of prison inmates. It aims to identify the hurdles at providing the full range of dental care facilities in prisons and the solutions to these problems.

Keywords: Oral health, mental health, prison inmates

The oral health status of prison inmates remains vastly ignored and underserved. The prison is filled with people who more often than not belong to the most neglected and disregarded societies. They are plagued with social exclusion, poor health and chronic untreated conditions which are a manifestation of the area they hail from and the prison into which they are sentenced. Prisoners make up a special group from the health care perspective because their day to day activities are limited and the jails in most of the prisons around the world are bursting at seams with a greater number of inmates than the capacity. This is very clear from the fact that there are around 1400 prisons in India with a capacity of around 3.96 lacs but there more than 4.6 lac inmates living in them [1]. Access to proper healthcare is one of the main barriers and add to that the burdens of traumatic injuries, violence, stress & neuropsychiatric conditions, alcoholism, drug abuse, systemic diseases, etc all creating a major disparity. Making problems worse is the fact that a disproportionately high number of them already have limited access to education, employment opportunities, nutritious diet, and housing difficulties [2]. It is well known that individuals from underserved and marginalized society have poor access and tendency to visit a dentist even outside the confines of a prison. They also exhibit higher indulgence in health damaging practices.

Not only are the prisoners sentenced for the crime they committed outside the jail but the sickness due to imprisonment amounts to a second sentence.

Access to healthcare is one of the foremost human rights of any citizen. Although a prisoner has been jailed and deprived of freedom and liberty by lawful means, their right to access to healthcare remains. Since the prisoners are sentenced to jail for a limited period, their health needs to be of importance to the society as well. These individuals are intended to return back into the society and with them the burden of healthcare would only increase. Hence it is imperative that such conditions be prevented and treated, on the similar lines as a law-abiding

There is a need to reform prison healthcare, including dental facilities in view of improving basic human rights compliance. They form a neglected group.

For instance, National anti-tobacco strategies do not take into consideration any prisons or correctional facilities in their plans <sup>[3]</sup>. Very little is researched and studied when it comes to health care of prison inmates leading to further disparity, negligence and greater incidence of dental conditions as compared to non-imprisoned individuals of the same age group, in the same area <sup>[4]</sup>. Thus, there is not a standardized method of assessing and prioritizing their dental needs. This could stem from the fact that inmates have limited freedom with security concerns leading restricted treatment sessions, if at all <sup>[5]</sup>. The main problem is that barely any health care or dental professional chooses to work in the prison system. A lack of dental equipment amenities available further adds to the challenge.

#### **Dental and Oral Health Issues**

There are unique challenges that are encountered with the prison population. If left unresolved, it can prove to be huge burden on the healthcare system. A few of the several oral and dental issues faced by the prison populations are as follows:

#### **Poor Oral Hygiene**

Western studies <sup>[6]</sup> have previously shown that a majority brushed their teeth twice a day with toothbrush and tooth paste. Prisoners from India widely use toothbrush, toothpaste, even toothpowder and charcoal. Most consistently good oral hygiene measures are seen to be practiced by younger inmates. However, more than 50% of the inmates exhibit dependence on tobacco chewing and smoking <sup>[7]</sup>.

#### **Dental History**

Fewer than 50% prisoners have visited a dentist and received dental care in the past according to a recent Indian study in northern cities of Mathura<sup>8</sup> and Ambala <sup>[9]</sup>. Western studies done in Italy <sup>[6]</sup>, Australia<sup>8</sup> and Scotland <sup>[9]</sup>. provide similar figures.

### **Dental Caries**

Prevalence of caries remains at an all-time high. Several aspects such as diet, lack of oral hygiene and lifestyle prior to coming to the prison may impact it.

In an Indian study by Dhanker *et al.* it was found to be 78.7% with mean DMFT of  $4.79^{[8]}$ .

Likewise, another Indian study<sup>7</sup> showed 82.42% incidence of dental caries and 3.26 mean DMFT score. This is considerably lower than what some of the western reports have mentioned with caries prevalence of 91.2% and mean DMFT of  $9.8^{[6]}$ .

#### **Periodontal Health**

Very few prison inmates have healthy gingiva, with chronic gingivitis being more prevalent. High incidence of calculus and probing depth of more than 4 to 5mm has also been reported<sup>7</sup> very similar to the result obtained from investigation by Heidari *et al.* in London <sup>[12]</sup>.

#### **Prosthodontic condition:**

A little less than half of the prison inmates have been known to require replacement of missing teeth. In one Indian study findings suggested only 0.39% of the inmates had prosthodontic bridges and full mouth prosthesis<sup>7</sup>, while other reports 19.1% use denture<sup>9</sup>. This difference may be due to awareness and willingness to accept treatment. In a study done in England by Jones *et al*, similar need of prosthetic replacement has been emphasized.

#### **Temporomandibular Joint Disorders**

Violence in prison due to reasons like lack of space, rivalry, dull environment and lack of activity has been reported as the main cause of TMJ problems including reduced jaw mobility, tenderness and clicking [7].

#### **Mucosal Lesions**

There is a definite prevalence of mucosal lesions like Leukoplakia, due to pervasiveness of betel quid and tobacco chewing habits. Lichen planus has also been found to exist, mainly attributable to high stress in the prison setting  $^{[14]}$ . Presence of oral mucosal lesions may also be influenced trauma, medication, poor hygiene of denture, etc as reported by Harris  $et\ al\ ^{[15]}$ .

#### Stress Related

Stress among prisoners has been linked to increased tobacco consumption, and ultimately to high CPI score. Emotional stress due to fractured tooth like maxillary central incisor has also been shown to be noteworthy <sup>[16]</sup>. Pain, acute or chronic, has been shown to be another aggravating factor towards stress and emotional volatility <sup>[9]</sup>.

#### **Individual Experiences**

Knowing the oral and dental issues is just one art of the solution. Additionally, the experiences of the prison inmate, jailer, dental surgeon and social worker attached to a jail can provide an insight to the root cause of these problems.

#### **Dentist's Experience**

The author volunteered her services at the District Jail Barabanki. It began with an invitation through a non-profit organization. The first visit was rather unsettling in the new and obscure environment of the district jail.

With the passage of time and regular visits, the author was pleasantly surprised to find out that the prison was well kept and provided a safe haven for the prison inmates. The prisoners belonged to all societal classes from labourers to managers, from housewives to engineers. In their free time they are engaged in physical exercises, arts, handicrafts and most notably in sewing school uniforms for the wholesale market. The dental facilities provided to the dentist on duty are not the best in line. It sometimes interferes with the quality of treatment provided to the patients.

The author could not find essential equipment and technicians in the jail, especially with regards to dental x-ray units. Further, the author found that many inmates are not willing to avail the treatments which are already available in jail since they cost money to the inmates. The only time they willingly pursue a treatment is if such treatment is provided to them for free and that too for minor procedures such as oral prophylaxis. RCT treatment becomes especially troublesome in such an environment as it takes multiple sessions and the inmates are not allowed to step out of jail that frequently.

The author feels that the stigma surrounding the prison and its inmates prevents doctors and dentists from rendering their services to this much deprived group. It is obvious that their services are indispensable and greatly appreciated by the prison inmates.

#### Social Worker's Experience

Ritinjali [17] is an NGO that has been working with the prison inmates at the Tihar Jail for about 12 years. The volunteers of this organization conduct thorough rehabilitation, counselling programs and free legal assistance to the inmates. They also

provide books through a library, facilitate sales, organise cultural activities and conduct physical fitness activities.

The purpose of this is to make the time of prison inmates bearable and easy so that they can reform and improve themselves before re-entering the society on completion of their term.

#### Jail Superintendent's Experience

The Jail Superintendent of a prison plays an important role as a liaison between the prison inmate and the healthcare provider or social worker. Their cooperation and know-how of the prison system can help in providing better healthcare opportunities to the prison inmates. For this study, we interviewed the Jail Superintendent of a District Jail.

He found his role immensely challenging. He is involved in the proper functioning of the jail as well as all the numerous day to day activities of the inmates. It ranges from basic necessities like food, to healthcare to legal aid and more.

When asked about the jail hospital, he mentions that it is adequately equipped, 30 beds with two doctors and two pharmacists present at all times. The female ward has a separate team and a 24-hour running emergency O.P.D. room. The jail hospital also has an ambulance with armed police force in which seriously ill patients are escorted and transferred to a higher medical establishment nearby, in case it is felt necessary. When a prison inmate is first brought to the jail, a thorough medical examination is carried out according to the National Human Rights Commission proforma. The inmates have the facility of consulting with medical specialists and dentists on the second and fourth Saturday of every month.

Dental camps are carried out once per month by local dental colleges and volunteering dentists. The prison administration rations out daily hygiene necessities like soap, detergent, sanitizers, etc but do not provide tooth brush, tooth paste or any other oral hygiene products. The jailer also informs that the medical and dental facilities provided to the prison inmates are of better quality than what many of them would have access owing to their low socio-economic status and degree of awareness.

#### **Prison Inmate's Experience**

For the purpose of this study, a male prison inmate at a Central Jail was also interviewed. He spent 4 months in the said prison facility. The prison inmate felt discontent about the status of healthcare being administered in the said prison. According to him, the general availability of doctor was a subject to their discretion. There seems to be a practice of involving prisoners who are qualified doctors to evaluate any patients who come through the O.P.D.

The female section of the jail had comparatively better access to doctor than the male section. The rudimentary prison hospital does not have any dental setup or dentists available on duty. Any dental or oral problems are deferred until the problem is grave and serious. The prison inmate recollects falling ill and not being given proper care, even after repeated requests.

The prison authorities allocate various responsibilities including running a printing press, making soap, utensils, cloth and even baking biscuits in the in-house bakery. The undertrial inmates have access to a well-stocked library and computer room. The prison inmate emphasizes on the need of mental and psychological counselling along with better availability of physicians and dentists in the prison hospital.

#### Challenges

Following challenges need to be dealt with to provide better dental care to prison inmates:

- Information pertaining to the oral health of prison inmates is close to non-existent and dental check-ups are not conducted regularly.
- There is unequivocal lack of motivation and negligence towards oral health care amongst the prison inmates. This is attributed illiteracy and fear of the unknown in terms of even a routine dental check-up.
- Dental facilities are lacking and not at par to meet treatment needs. In most scenarios, there is often dearth of dentists and healthcare workers in prison hospitals.

#### Conclusion

In a developing country like India, it is very important to carry out reforms in health care policy so that the burden on healthcare system can be reduced. The population in prison remains unconcerned about their health status because of the neglect they face, underestimating the ultimate consequences. There has to be greater emphasis on concerned healthcare authorities, non-profit and social work organizations along with surrounding dental colleges to render their services to prison clinics. This brings a great prospect to deal with the burden on healthcare system and improve oral health within the confines of the prison itself.

#### Recommendations

Prisons pose a unique challenge to the health care system. It is, therefore, imperative that the structured actions be taken to tackle this matter:

- Standard dental service specifications and protocols should be implemented in the prison dental clinic assessing quality of service provided, conducting regular dental camps, carrying out regular surveys and studies and most importantly, educating the prison population regarding dental and oral health& drug, tobacco and alcohol abuse along with its systemic implications.
- Well-equipped and accessible dental clinic within the prison, at par with standard of facilities available outside the confines of a prison.
- Providing basic dental supplies like tooth brush, toothpaste, and other oral hygiene aids as required.
- The healthcare and dental staff must undergo formal training which reflects on the requirements of working in a prison environment including understanding of the mental health issues, substance abuse, handling trauma and violence cases, etc.
- Idea of integration of local healthcare workers and dentists can be explored, along with local dental colleges and volunteer organizations.
- Just as schools are chosen for dental camps in villages, dental colleges can choose jails for city camps by following proper protocol and ensure that inmates can avail dental care.
- Integration of healthcare informatics and software for improved treatment delivery.
- Regular healthcare and dental meets with prison authorities to raise issues and carry out remedial actions for improved functioning of the prison healthcare system.

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