



## PROSTHETIC STATUS OF PRISONERS

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## KEYWORDS :

## INTRODUCTION

Oral health and general health are interlinked with each other. In India, dental and oral diseases are at a great degree of negligence. Indefiance of an enhancement in the socioeconomic status, fluoridation of public water supply, increase in outlay on dental care, dental and oral disease is getting epidemic and disproportionate in certain segments of society.<sup>1</sup> The early detection of the root cause is the most economical means of preventing dental disease, but unluckily certain people are either unaware of dental services or else are denied to access these services. The major concerned population like disabled patients, prisoners, old age people, factory workers etc are at the greatest need for dental treatment but they receive the least services.<sup>2</sup> Prison is a shell of detention wherein people are restricted on remand awaiting trials, on trial or for punishment following judgement for a crime and the prisoner is one held in prison waiting for the trial and serving sentence. There are proximately 1336 prisoners in our country.

Following are the categories of jails in India<sup>3</sup>:

Central Jail - 111  
District Jails - 293  
Sub Jails - 852  
Women Jails - 15  
Borstall Schools - 10  
Open Jails - 23  
Special Jails - 20  
Other Jails - 8

**Rajasthan has the following number of jails :**

Central Jails - 8  
District Jails - 25  
Sub Jails - 60  
Women Jails - 2  
Borstall Schools - 0  
Open Jails - 8  
Special Jails - 0

In the year 2012, total prisoners i.e 31,3282 with the capacity of 11,242 signifies the number of prisoners is twice the given capacity in jails of India, this gives rise to unhygienic conditions among prisoners which is a matter of great concern.

Majority of prisoners belong to low socioeconomic status as well as lower qualifications, poorer housing condition (some are homeless). Social classes four and five are less likely to use health services like (screening, immunization and health advice), some are indulged in smoking, drinking and other practices that deteriorates their health which leads to poorer oral and general health. Non availability of health concerned facilities and expertise causes intense damage to the health of inmates.<sup>3</sup>

Very few health professionals choose to work on prisoners, health workers especially dentists use armamentarium which are sharp in their basic treatment procedures goes against the security protocols of the jails. Medical and dental services in jails are insufficient in quality as well as quantity. Lack of facilities, health professionals hesitation to work in jails and negligence of health by jail staff further caused decline in the health condition of prisoners.

This tells us the reason for such prescribed studies conducted in the

prison system mainly in India. It is a challenge to serve in the prison including, their security protocols recruitment and retention of dental staff, in relation to strong need and surplus compensation for dentist in private practices.<sup>7</sup>

Still there is no standardized system of evaluation and importance of dental needs of prisoners. Valuing oral care can improve complete health among the prisoners.<sup>2</sup> Plan for the comprehensive treatment is important to access the existing oral health status of prisoners and identify their treatment needs, so the present study is based on observed facts with the objective to identify prosthetic status of prisoners residing in central jail Jodhpur India

METHODOLOGY  
STUDY DESIGN

The present cross-sectional study is conducted in Central jail of Jodhpur city, Rajasthan, for a period of 6 months from month of February to August 2014. The reason for selecting central jail is that among all the prisons in jodhpur city central jail is only the place where we are getting prisoners who are more in number and have been imprisoned from longer duration of time which is sufficient to carry out a survey and also to find out the effect of imprisonment on prisoners as compared to other prisons in jodhpur which have very less prisoners and also duration of stay is very less.

## ETHICAL CLEARANCE

Ethical approval was taken from the ethical committee of Vyas Dental College and Hospital. A written permission was taken from the central jail committee to carry out the examination and later informed consent was obtained.

Also Prior permission was taken from the Superintendent of central Jail, Jodhpur, to conduct the study among all the inmates

## SAMPLING:-

Purposive sampling has been used in this study. That is purposively selecting the individuals for the study. It included the group of individuals who were actually available for the investigations (All the inmates). There are 1400 prisoners in Jodhpur Central jail. Among them total of 981 prison inmates participated in the study.

## INCLUSION CRITERIA

The inclusion criteria included-

The prisoners who have been imprisoned from 3 months.

All the inmates who were willing to give the consent were included in the study.

## EXCLUSION CRITERIA

The subjects who did not give their consent for oral examination were excluded.

## PILOT STUDY

Pilot study was carried before starting the main study to check feasibility of proforma. The data of the pilot study was not included in the main study and the necessary modifications were made in the final proforma.

Sample size formula was made on the basis of prevalence of dental caries which was made from the pilot study conducted previously.

Thus, the study population comprised of 981 subjects and the response rate was 70 % (good response rate)

**COLLECTION OF DATA:**

**Proforma**

The study involved the completion of a pre-designed questionnaire on general information, Tobacco consumption (type, frequency and duration of intake of Tobacco) oral hygiene measures and duration of imprisonment and modified WHO proforma for determining the oral prosthetic status.

**TRAINING AND CALIBRATION:**

Before the starting of the survey, the guide calibrated the investigator regarding the WHO criteria for diagnosing the oral disease. The mean Kappa co-efficient values for intra-examiner reliability with respect to Kappa co-efficient of all the indices used in the WHO Oral Health Assessment for- mat was 0.75.

**EXAMINATION AREA**

The prisoners were escorted in groups to the examination hall by 2-3 policemen for maintaining a strict security during the examination. The investigator himself carried out the clinical examination throughout the study. The inmates were examined in the hall as well as in hospital of jail, and were asked to sit comfortably on an ordinary chair with backrest and examination was carried out using natural light with examiner standing behind or in front of the chair. All the data was recorded by the recording assist- ant. The recording assistant was seated in front of the examiner, so that the codes being recorded were seen by the examiner.

Each prisoner was interviewed followed by oral examination which was conducted by the examiner. The examiner carried out the examination and the data was recorded by a recorder who is also an intern after being well trained and calibrated

**Training of recording assistant**

The examiner was assisted by a recording assistant who was trained to write codes clearly. The instructions were given to the assistant about how to record the data on the assessment form and other entries correctly.

The data was recorded in a pre-designed proforma sheets and oral health status was recorded using WHO assessment form. After examination the prisoners were sent to their respective cells.

**ARMAMENTARIUM**

The clinical examination was carried out by using sterilized instruments PMT sets (explorer, mouth mirror, tweezer), CPI Probe, Disposable Gloves and Mouth Masks, Kidney trays, Recording forms and Pen Torch by a single examiner.. Autoclaved instruments were carried to examination hall. Later, cold method of sterilization of instruments was followed using Activated Gluteraldehyde Solution – 2.5% (cidex) for the twenty minutes.

**STATISTICAL ANALYSIS**

The data obtained was compiled systematically, and it was transformed from a pre-coded proformato a computer and a master table was prepared. The total data was distributed meaningfully and presented as individual tables along with graphs.

Descriptive statistical analysis has been carried out in the present study. Results on continuous measurements are presented on Mean ±SD (Min-Max) and results on categorical measurements are presented in Numbers (%). Significance is assessed at 5% level of significance. (p<0.05). One way ANOVA tests were used.

**STATISTICAL SOFTWARE**

The statistical software namely SPSS 19 was used for analysis of the data and Microsoft excel was used to generate results.

**RESULTS –**

An epidemiological study was conducted to evaluate the oral health status of prisoners, adverse oral habits and to identify oral hygiene status of prisoners of central jail Jodhpur, who have been imprisoned for more than 3 months. The study was carried out on 981 prisoners of central jail and the following findings were revealed.

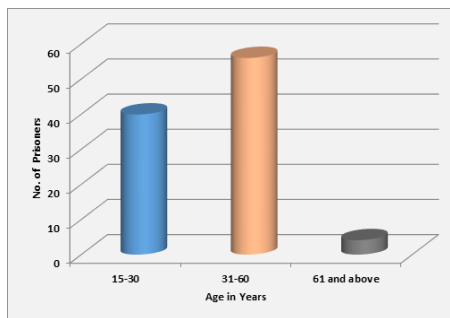
**Table 1: Distribution prisoners of central jail according to age, gender and duration of jail**

Characteristics	No. of prisoners (n)	Percentage (%)
Age		
15-30 Years	391	39.9 %
31-60 Years	549	56.0 %
61 and above	41	4.1 %

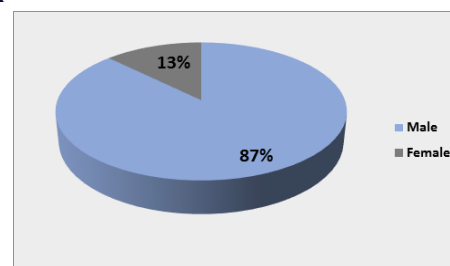
Gender		
Male	856	87.3%
Female	125	12.7%
Duration of Stay in Jail		
3month - 1 Year	224	22.9 %
1-3 Years	256	26.1 %
4-6 Years	220	22.5 %
7-9 Years	136	13.9 %
10-12 Years	68	6.9 %
13-15 Years	45	4.6 %
16 and above	31	3.2 %

– Number of patients in a particular category

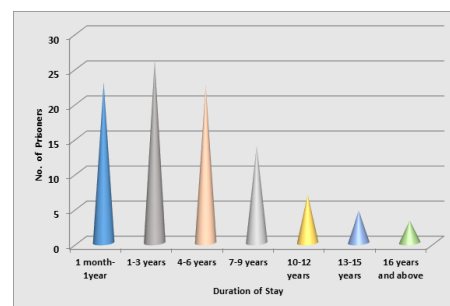
**Graph 1: Distribution of prisoners of central jail according to their Age**



**Graph 2: Distribution of prisoners of central jail according to their Gender**



**Graph 3: Distribution of prisoners of central jail according to their Duration of Stay in the jail**



**Table 1 graph 1-** Shows age wise distribution of prisoners and it has been found that 391 (39.9%) of prisoners belong to age group between 15-30, and maximum of 549 (56 %) of the prisoners belong to age group between 31-60 years, only 41 (4.1%) of prisoners were in age group 60 and above.

**Table 1 graph 2:** Shows gender-wise distribution of prisoners and it depicts that males are more in number 856 (87%) than females which are 125(12.7%).

Table 1 graph 3 reveals the distribution of prisoners regarding duration of stay in jail and we found that 224 (22.9%) prisoners were imprisoned from 1 month to 1 year, maximum of 256(26.1%) of prisoners have been imprisoned from 1-3 years, 220 (22.5%) were imprisoned from 4-6 years, 136 (13.9%) from duration of 7-9 years 68 (6.9%) for duration of 10-12 years and minimum of 3.2% of prisoners have been imprisoned since 16 years and above .

**Table 2: Distribution of prisoners of central jail according to their oral hygiene practice**

Oral hygiene practice	No. of prisoners (n)	Percentage (%)
Type		
Toothbrush + Toothpaste	558	56.9%
Toothbrush + Toothpowder	19	2%
Finger + Toothpaste	149.1	15.2%
Finger + Toothpowder	98	10%
Indegenous means	106	10.9%
No Brushing	49	5.0 %
Frequency of Brushing		
Never		14.9 %
Once	146	83.4 %
Twice	817	1.7 %
	17	

n- Number of patients in a particular category

**Table -2** shows the distribution of prisoners according to their oral hygiene practice and it has been seen that 558 (56.9%) of prisoners brushes their teeth with tooth brush and tooth paste, whereas 19(2%) uses tooth brush and tooth powder for cleaning of teeth, 149.1 (15.2%) of subjects uses finger and toothpaste and 98 (10%) of subjects use finger and toothpowder whereas there were 49(5%) prisoners who never brushed their teeth. Related to frequency of brushing it is seen that 146 (14.9%) of prisoners never brushes their teeth where as 817(83%) of prisoners brushes their teeth just once in a day and 17 (1.7%) of prisoners brushes twice a da

**Table 3: Distribution of prisoners of central jail according to their Adverse Oral Habits**

Adverse Oral Habits	No. of prisoners (n)	Percentage (%)
No Smoking	368	
Smoking	244	37.6 %
Smokeless	191	24.9 %
Both	177	19.5 %
		18.1 %
Smoking Type		
Cigarette	16	3.3 %
Beedi	400	96.7 %
Frequency		
1-5	144	34.6 %
6-10	122	28.9 %
11-15	61	14.6 %
16-20	32	7.7 %
20 and above	60	14.4 %
Duration		
0.4-1	62	14.7 %
1-10	204	48.5 %
11-20	96	23.1 %
21-30	40	9.6 %
31-40	09	2.2 %
41-50	10	2.4 %

Table-3 is showing distribution of prisoners according to adverse oral habits and the following findings are depicted showing that 368 (37.6 %) prisoners are non tobacco users whereas 244 (24.9%) are using tobacco in the form of smoking and 191(19.5%) of prisoners consume tobacco in smokeless form and 177(18.1%) of prisoners consume tobacco in both smokeless and smoking form.

Related to type of smoking it has been seen that beedi is consumed more which is among 400 (96.7%) prisoners as compared to cigarette which is among 16(3.3%) prisoners

The frequency of smoking showed that maximum of 144 (34.6%) prisoners smoke between 1-5 times in a day, while 122 (28.9%) smokes 6-10 times in a day, also 61(14.6%) smokes 11-15 times per day and 60(14.4%)smokes more than 20 times per day.

The duration of smoking depicts that 204(48.5%) subjects has been smoking from 1-10 years whereas 96(23.1%) of prisoners are smoking from 11-20 years, 9 (2.2%) of prisoners sre smoking from 31-40 years and 10 (2.4%) prisoners are smoking from more thn 40 years.

Among smokeless form 311(84.5%) of prisoners take zarda in

comparasion to gutka which is consumed by 57(15.5%) prisoners . The frequency of consuming smokeless tobacco revealed that 190 (51.6%) of prisoners use tobacco 1-5 times in a day whereas 142 (38.5%) of prisoners use smokeless tobacco 6-10 times per day and only 5 (1.4%) of prisoners use tobacco more than 20 per day.

The duration of having smokeless tobacco depicts that 248(67.9%) of prisoners are having it from 1-10 years, while 91(24.9%) of prisoners are having smokeless tobacco from 11-20 years and 6(1.2%)of prisoners shows duration of taking smokeless tobacco from 31-40 years .

**Table -4 Distribution of prisoners according to prosthetic conditions**

Prosthetic Status		
Upper		
No prosthesis	949	96.8 %
Bridge (one unit )	16	1.6 %
More than one bridge	09	0.9%
Partial denture	03	0.3 %
Both bridge(s) and partial denture(s)	02	0.2 %
Full removable denture	00	0.0 %
Not recorded	01	0.1 %
Lower		
No prosthesis	949	96.8 %
Bridge(one unit)	11	1.1 %
More than one bridge	10	1.0 %
Partial denture	05	0.5 %
Both bridge(s) and partial denture(s)	04	0.4 %
Full removable denture	00	0 %
Not recorded	01	0.1 %
Prosthetic Need		
Upper		
No prosthesis needed	616	63.3 %
Need for one unit prosthesis	154	15.5 %
Need for multi unit prosthesis	170	17%
Need for combination of one / multi unit prosthesis	24	2.4 %
Need for full prosthesis	09	0.9 %
Not recorded	06	0.6 %
Lower		
No prosthesis needed	674	69.9 %
Need for one unit prosthesis	95	9.7 %
Need for multi unit prosthesis	174	17.6 %
Need for combination of one / multi unit prosthesis	18	1.8 %
Need for full prosthesis	13	1.3 %
Not recorded	06	0.6 %

Table 4- Showing prosthetic conditions of the prisoners revealing that in prosthetic status its seen that only 16 (1.6%) of prisoners were having one unit bridge in upper jaw, 9(0.9%) prisoners were having more than 1 bridge while 3(0.3%) were having partial denture and 2 (0.2%) were having both partial and bridge in the upper jaw whwereas in lower jaw it was seen that only 11 (1.1%) of prisoners were having single unit bridge ,while 10 (1%) were having bridge more than 1 unit,also 5(0.5%) were having partial denture and 4(0.4%) were having both partial denture and bridge .

Among prosthetic needs it was seen that 154 (15.5%) of prisoners needed one unit prosthesis, 170(17.1%) of prisoners needs multi-unit prosthesis,while 24(2.4%) needed combination of one /multiunit prosthesis and 9 (0.9%) of prisoners needed full prosthesis in upper jaw whereas in lower jaw 95(9.7%) prisoners need one unit prosthesis , 174(17.6%) of prisoners needed multi unit prosthesis and 13(1.3%) of prisoners needed full prosthesis

**TABLE 5 : Relation between age and prosthetic status of prisoners**

Prosthetic status		N	Mean	S.D.	F value	P-Value	Significance
Prosthetic Status Upper	15-30 Years	391	0.023	0.289	2.876	0.057	Significant
	31-60 Years	549	0.078	0.404			
	61 and above	40	0.100	0.496			

Prosthetic Status Lower	15-30 Years	391	0.040	0.283	1.353	0.259	Non Significant
	31-60 Years	549	0.087	0.505			
	61 and above	40	0.075	0.474			
Prosthetic Needs Upper	15-30 Years	391	0.235	0.892	7.357	0.001	Significant
	31-60 Years	549	0.398	0.925			
	61 and above	40	0.750	1.372			
Prosthetic Needs Lower	15-30 Years	391	0.301	0.844	6.133	0.002	Significant
	31-60 Years	549	0.426	0.943			
	61 and above	40	0.800	1.324			

(One-Way ANOVA test) ( $p \leq 0.05$  – Significant, CI = 95 %)

Table 5 shows relationship between age groups and oral health status of prisoners using one way ANOVA analysis

The results suggests that among prisoners there was significant relationship between their age groups and oral hygiene status ( $F=2.936, p=0.054, S$ ), CPI ( $F=10.071, p=0.000, S$ ), LOA ( $F=10.022, p=0.000, S$ ), Dental Caries status ( $F=6.011, p=0.003, S$ ), Prosthetic status of upper quadrant ( $F=2.876, p=0.057, S$ ) and also there was a significant relationship between the age groups and prosthetic needs in the upper quadrant ( $F=7.357, p=0.001, S$ ) and in the lower quadrant ( $F=6.133, p=0.002, S$ ).

**TABLE 6 : Relation between Duration of Stay and prosthetic status of prisoners(One-Way ANOVA test)**

Oral Health Status	N	Mean	S.D.	F value	P- Value	Significance
Prosthetic Status Upper	980	0.057	0.368	0.102	0.998	Non Significant
Prosthetic Status Lower	980	0.068	0.429	0.167	0.992	Non Significant
Prosthetic Needs Upper	980	0.348	0.940	0.852	0.545	Non Significant
Prosthetic Needs Lower	980	0.391	0.929	1.077	0.376	Non Significant

( $p \leq 0.05$  – Significant, CI = 95 %)

TABLE 6 Shows the relation between duration of Stay and prosthetic status of prisoners by using One-Way ANOVA analysis. The results suggests that among the prisoners there was a significant relationship between duration of stay. There was no association seen among the prisoners between duration of stay and prosthetic status lower prosthetic status upper, prosthetic needs upper , and prosthetic needs lower.

**TABLE 7 : Relation between Adverse Habits and prosthetic status of prisoners (One-Way ANOVA test)**

Oral Health Status	N	Mean	S.D.	F value	P- Value	Significance
Prosthetic Status Upper	980	0.057	0.368	3.782	0.010	Significant
Prosthetic Status Lower	980	0.068	0.429	1.511	0.210	Non Significant

Prosthetic Needs Upper	980	0.348	0.940	6.316	0.000	Significant
Prosthetic Needs Lower	980	0.391	0.929	4.318	0.005	Significant

( $p \leq 0.05$  – Significant, CI = 95 %)

TABLE 7- Shows the Relation between Adverse Habits and prosthetic status of prisoners using using One-Way ANOVA analysis. From the results it was found that a significant relationship among the prisoners was seen between adverse oral habits with Prosthetic Needs Lower( $F=2.787, P=0.040$ )

There was no association seen among the prisoners between adverse oral habits with prosthetic status lower, prosthetic status upper, prosthetic needs upper .

**TABLE 8: Relation between tobacco use and prosthetic status of prisoners (One-Way ANOVA test)**

Oral Health Status	N	Mean	S.D.	F value	P- Value	Significance
Prosthetic Status Upper	980	0.057	0.368	3.137	0.025	Significant
Prosthetic Status Lower	980	0.068	0.429	5.560	0.001	Significant
Prosthetic Needs Upper	980	0.348	0.940	2.828	0.038	Significant
Prosthetic Needs Lower	980	0.391	0.929	4.076	0.007	Significant

( $p \leq 0.05$  – Significant, CI = 95 %)

TABLE 8 shows relation between smoking and prosthetic status of prisoners (One-Way ANOVA test)

The results suggests that among the prisoners smoking was found to be in significant relationship with Prosthetic Status Upper( $F= 3.782, P= 0.010$ ), Prosthetic Needs Upper ( $F=6.316, P= 0.000$ ), Prosthetic Needs Lower ( $F=4.318, P=0.005$ ).

**TABLE 9: Relation between Oral hygiene practices and prosthetic status of prisoners**

Oral Health Status	N	Mean	S.D.	F value	P- Value	Significance
Prosthetic Status Upper	980	0.057	0.369	2.368	0.028	Significant
Prosthetic Status Lower	980	0.068	0.430	2.966	0.007	Significant
Prosthetic Needs Upper	980	0.349	0.941	10.086	0.000	Significant
Prosthetic Needs Lower	980	0.393	0.930	14.108	0.000	Significant

(One-Way ANOVA test) ( $p \leq 0.05$  – Significant, CI = 95 %)

TABLE 9 shows the Relationship between Oral hygiene practices and oral health status of prisoners by using One-Way ANOVA analysis

The results suggests that oral hygiene practice among the prisoners was in a significant relationship with abnormalities of TMJ(  $F=5.65, P=0.000$ ), Oral Mucosal Condition ( $F=3.153, P = 0.005$ ), OHI-S ( $F =8.474, P= 0.000$ ), CPI ( $F=3.494, P=0.002$ ), LOA ( $F=9.075, P= 0.000$ ), DMFT ( $F=14.135, P=0.000$ ), Prosthetic Status Upper ( $F=2.368, P= 0.028$ ), Prosthetic Status Lower ( $F=2.966, P=0.007$ ), Prosthetic Needs Upper ( $F=10.086, P=0.000$ ), Prosthetic Needs Lower ( $F=5.293, P=0.000$ ),

There was no significant association found between oral hygiene practice among the prisoners and extra oral conditions

## DISCUSSION

The present study was conducted to evaluate the prosthetic status of the prisoners of central jail, Jodhpur Rajasthan, for a period of 6 months. The study was carried out on 980 prisoner inmates of central jail who were imprisoned for more than 3 months. The inmates were interviewed and examined using modified WHO oral health assessment proforma (1997). The present study was carried out with the following objectives –

To find out the general information about the prisoners and oral hygiene measures.

- To identify adverse oral habits among prisoners.

To identify oral hygiene status of prisoners.

To identify the prosthetic health status of prisoners of central jail.

To find the Effect of various factors on prosthetic status of prisoners.

According to 2009-2010 agency annual report report - The average age of inmates is 33.4 years.<sup>8</sup> The Tihar jail report 2010<sup>8</sup> showed that majority of the Prison population around 54% were in the age group of 21-30 years and next come the prisoners in the age group of 30-50 years which is around 32%. Our study also shows that maximum 56 % of the prisoners belong to age group between 31-60 years. It is in concordance with a study conducted by M Osborn<sup>9</sup> which shows that mean age of the subset of respondents who underwent oral examinations was 35.8 years. Study conducted by Mudoor Manjunath Dayakar 2014<sup>10</sup> also showed that majority of the inmates were in the age group of 31 to 40 (56.1%), followed by the age group of years 21 to 30 (19.5%).<sup>10</sup> Colman McGrath<sup>11</sup> stated that the oral health status of the adult prisoner group was poor; many were edentulous, having untreated decay and poor periodontal health. In addition, a considerable proportion was in need of prosthetic care. Their 'clinical' oral health was poorer than that of older adults in the general Hong Kong population where the prevalence of edentulism among older people (aged 65-74) is reported to be 12%. The present study shows that 46.4 % of prisoners needs prosthesis in the maxillary arch whereas 41 % needs prosthesis in the mandibular arch. Similar study conducted by Dr. Anup N<sup>12</sup> showed slightly higher prosthesis needs of 44.3% in the maxillary arch and 46.4% inmates need prosthesis in mandibular arch. The present study also showed that 42.5% of prisoners needs more than one unit prosthesis, while 0.9% of prisoners needed full prosthesis in maxillary jaw whereas in mandibular jaw 37.3% of prisoners needed more than one unit prosthesis and 1.3% of prisoners needed full prosthesis, these results were quite higher in comparison with study conducted by Dhanker K<sup>13</sup> displaying 14.6% in maxillary and 13% in mandibular arch need more than one tooth replacement, while 1.7% and 1.6% required complete denture in maxillary and mandibular arch respectively. Similar results have been shown in study conducted by Dr Anup N.<sup>46</sup> The results of the present study were in concordance with study done by Uma SR and Hiremath SS.<sup>14</sup> Another study conducted by Veera Reddy<sup>5</sup> showed 32.2% of prisoners needed prosthesis. Colman McGrath<sup>17</sup> in a study showed that three-quarters of the prisoners were in need of prosthetic treatment.<sup>17</sup> Among the prisoners examined in the present study it was seen that only 2.7 % of prisoners were having prosthesis in the maxillary arch whereas in mandibular arch only 3% were having prosthesis, similarly study conducted by Veera Reddy<sup>5</sup> showed that, 8.8% had prostheses in the upper and lower jaws (6.6% and 2.2%, respectively). This can be due to high incidence of caries and periodontal disease, poor treatment facilities in prisons. Also with increasing age, attitudes towards oral health and their care seeking behaviors and the limited options of treatment modalities in prisons are responsible for low prosthesis among prisoners. The present study has been conducted on 980 life-imprisoned inmates in the central jail of Jodhpur Rajasthan to assess their oral health status of the prisoners. The results of the current study indicate that the inmates of Jodhpur jail had high prevalence of dental caries, oral mucosal lesions, poor periodontal status, TMJ disorders and varying degrees of dental fluorosis. It creates an alarming need to focus on these risk groups with special emphasis on the factors which are contributing to the poor oral health and tooth loss, leading to increase in demand for prosthesis. A dental centre for the provision of oral health care services to the inmates is strongly advised as it will help take care of some of their dental needs. Preventive measures to improve dental care and provision of dental health education are very much necessary to ensure optimum oral health among the inmates. Our findings give a cue for the provision of programs aimed at correcting risk behaviour and preventing the long-term effects of incarceration on prisoners' health. There is a need to give more attention to oral health promotion, as

eventually respondents will be returning to the community

In light of the observations from the present study, the following recommendations can be made. Prison inmates should be made aware of the need for oral healthcare and harmful effects of smoking, inadequate plaque control, and inadequate treatment facilities. Approach for general promotion of good oral hygiene practices should be carried out on a large scale for control and prevention of periodontal disease. Government should consider employing a full-time dentist along with a physician to serve prisons located within distinct geographical localities.

This study also emphasizes the need for special attention from the government and voluntary organizations to meet the oral health needs of this special group. Further longitudinal studies should be conducted to explore the relationship between the onset and progression of oral diseases in the prison environment.

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