

Dental Care Seeking Behaviour among Female Jail Inmates of Bhopal City-A Cross Sectional Survey

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Abstract

Aims and Objective: Literature on oral health care related behavior of female prisoners is scanty. Hence this study is designed to provide information on dental care seeking of female prisoners and serve as baseline data to astound upon the prison authorities, the need to further plan preventive curative and rehabilitative services in the Jail Premise.

Methods: This cross-sectional study was done on 177 female prisoners residing in central jail, Bhopal, M.P, INDIA, by interviewing, interrogating and entering the WHO basic oral health survey methodology 2013. Statistical analysis was done using SPSS version 17.

Result: On compiling the data collected, the result unveiled that majority of the female prisoners did not concern dentist ever in spite of having poor oral hygiene and dental problems.

Conclusion: Concluding details of the contemporary study was overall dental awareness, dental health seeking behaviour among female prisoners residing in Central prison Bhopal was wretched. Due to stressful milieu comprising desertion from the society as well as family, the prisoners underrate their health issues primarily and thus did not even care to consult dentist regarding their oral health issues.

Key Words: Female prisoners, Oral Health, Dental Care, Jail, Inmates

Introduction

Oral health is a critical but an overlooked component of inclusive health and well-being. Oral health problems such as dental caries, periodontitis and oral cancer are pandemic and has high global health burden [1].

Although, dental care is a part of primary health care in India, dental care services are rarely available, literacy level is low moreover in terms of oral health it is all the more low. So in a specific cohort like prisoner oral health is even more depreciated. Prisoners are psychologically, socially, morally and economically affected group [1]. These people are cast out from society and are furthest neglected. So definitely forming a destitute group, the health of prisoners is of great concern particularly because the number of persons under the jurisdiction of correction systems, including those on probation or parole, continues to increase dramatically.

Prison population consists of an over representation of members of the most marginalized groups in society, people with poor health and chronic untreated conditions. This population is an underserved section of the society. Often their oral health problems are neglected. They carry a much greater burden of illness than other members of the society; they harbour diseases that are determined both by the environment out of which they come and by the prison in which they live. "Prison" means any jail or place used permanently or temporarily under the general or special orders of the state government for the detention of prisoners and includes all lands and buildings appurtenant thereto. It is not a place where someone would like to live. Whatever are the reasons behind incarceration? Whether it is seen as a punishment or as a mode of rehabilitation? The normal life of the inmate is restricted, freedom of movement is curtailed, and private space is limited. Many of the prisons over the globe are overburdened; the population confined behind bars in the US in 2008 was in

excess of 1.6 million [2]. In India too, the situation is no better. There are about 1276 prisons in the country with an authorized accommodation of 2,77,304; however, the total number of jail inmates is nearing 4 lacs indicating severe overcrowding in prisons and there is 16,951 female inmates in different jails in India [3].

Health care systems in Indian prisons are built on the model of "access by demand" and triage for a level of care felt appropriate by people other than the patients themselves [4]. It is difficult to expect oral health to be priority in such settings and extraction of teeth becomes a common parlance.

Being in prison, they face lack of inevitabilities and quality living, hygiene and nutritious food. Unhygienic living circumstances, mentally stressful conditions and abandonment resulting in unhealthy web of causation for morbidity. Multifactorial causation and destructive facets of life nevertheless health and unambiguously oral health perpetually upsurge in deleterious habits like tobacco, alcohol etc. rebounds with poor oral and medical conditions [5].

Their low esteem makes them underrate their health related issues as well. Invariable increase in and morbidity below the tip of the ice-burg. Consequently health care seeking behaviour stays extreme missing resulting in deterioration in health among prisoners, marginalized cohort of society.

Women are the most pre-eminent segment of Indian society who have long been bypassed or overlooked in the course of empowerment. Many have little or no access to education and basic health services, so is the scenario with female prisoners or even worse. Considering the importance given by policy maker across various nations to the group approach while conceptualizing, formulating and implementing any scheme on program for the welfare of marginalized and underprivileged women, we identified the need to critically examine and explore the dental care seeking behaviour of female prisoners [6].

Rates of imprisonment are increasing dramatically in many countries around the world. According to the World Prison Population List, prison populations have increased by 73% over a relatively short period of time. The number of female, who are already overrepresented in the prison population, is rapidly increasing as well. As a result of rising imprisonment rates nationally and globally, researchers, advocates, correctional providers and policy makers are paying more attention to the experiences of prisoners prior to, during, and after being released from prison. One area that is receiving noticeably more thoughtfulness is the health and well-being of prisoners, as well as prison health services. A growing awareness of the need to provide health services similar to the standards of health care in the community has emerged [7]. The need for more research on the health of provincial prisoners and health services in jail emerged from a study that found that poor health among female prisoners and the lack of health services available in provincial jail were key issues for women during incarceration and negatively influenced their ability to successfully reintegrate in the community after they were released from jail [8]. Heading towards these evidences the attempt is made to assess oral health care related behaviour of female prisoners in central jail Bhopal to enterprise further preventive, curative and rehabilitative oral health care intensifying program in the women wing of Central jail, Bhopal.

Methodology

Study design, setting and duration: The present cross sectional, interview based questionnaire survey was conducted to assess the dental Care Seeking behaviour among female jail inmates of central jail, Bhopal. The study was scheduled for a period of 1 month from July 2014 to August 2014.

Ethical clearance: Before the commencement of the survey; a detailed study protocol was presented and ethical clearance was obtained from the institutional ethical committee of People's University, Bhopal. Also, an official permission was obtained from the Inspector General of Police and Inspector General of Prison officer, Bhopal. Furthermore; the jail authorities were assured that the result of the on-going study will be reported to them as soon as possible for the oral health improvement of the female Jail inmates.

Sample design and size: A total of 61 female inmates who were available at the time of survey were selected by using convenient sampling technique.

Selection Criteria: The selection of study subjects was done by using following criteria.

Inclusion Criteria: All the convicted female inmates who were available at the time of study and who provided their written consent were selected.

Exclusion criteria:

1. Inmates who failed to give their written consent were excluded from the survey.
2. The inmates failed to complete the interview.
3. Under trial women inmates were excluded because of their inability to attend the survey due to parole and court hearing.
4. Inmates with crippled health were also failed to be a part of the survey.

5. Naxalites and terrorists were excluded due to their psychological inefficiency.

Structure of the questionnaire: A pre-tested, 10-item questionnaire was used to assess the dental care behaviour of the subjects. Along with the demographic details like age, sex; questions related to reason to visit to dentist and problems arising due to bad state of teeth or gums were included. Each questionnaire was consisted of four options. The questionnaire was also checked for its linguistic validity, which found to be good.

Examiner calibration: Before the commencement of the survey; the training and calibration of the examiners was done in the dental wing of central prison, Bhopal.

Pilot survey: A pilot survey was conducted among 10 randomly selected women inmates. The reason behind conducting the pilot survey was to know and correct the practical difficulties while performing the survey. The result of the pilot survey was also included in the study.

Survey procedure: The survey procedure was performed by two independent trained examiners in the dental wing of central prison, Bhopal. Each examiner conducted an interview separately. Both examiner and inmate were seated on a stool at an approximate distance of two feet. During an interview, the questionnaire was filled by an examiner. Each question was provided with four possible options. Inmate was asked to choose one response for each question. Examiner recorded the response given by an inmate. Each option was coded in a numerical form for the convenience in statistical analysis.

All the obtained data was entered in to a personal computer on a Microsoft Excel sheet and was analyzed by using software Statistical Package for Social Sciences (SPSS, IBM, Chicago, USA) version 19. Descriptive statistics along with chi-square test were performed to analyze the categorical data. A level of significance was considered to be statistically significant at ≤ 0.05 .

Results

The present study was undertaken to assess the dental care seeking behavior of female inmates in central jail, Bhopal, Madhya Pradesh. A total of 61 female inmates were surveyed. The results indicate the illustration of modest state of oral health which has been identified as considerable level of unmet dental treatment needs.

Among the total female inmates; a highest of 51 (77.3%) inmates had never received any time of dental care. Whereas, the age wise distribution showed that among the age group 20-35 years, majority, i.e., 29 (43.9%) inmates showed a negative attitude towards utilization of a dental care. The difference among the study inmates according to age was statistically significant (*Table 1*).

While exploring the reasons to visit the dentist; it was found that only a single i.e. 1.5% inmate visited dentist for the purpose of consultation, while, 11 (16.7%) inmates visited with a complaint of pain, and 2 (3%) visited for the purpose of a treatment (*Table 2*).

On assessing the problems occurred due to the state of teeth or gums it was found that a highest of 32 (48.5%) inmates were unaware about the problems that may occur due to state of teeth or gums. Whereas, a total of 19 (28.8%) female

Visit to dentist	Age (in Years)						Total	
	20-35		36-50		51-65		N	%
	N	%	N	%	N	%		
≤ 6 months	2	3.0%	2	3.0%	0	0.0%	4	6.1%
6-12 months	3	4.5%	0	0.0%	0	0.0%	3	4.5%
1-2 years	0	0.0%	1	1.5%	0	0.0%	1	1.5%
2-5 years	1	1.5%	2	3.5%	0	0.0%	3	4.5%
5 years or more	2	3.0%	1	1.5%	1	1.5%	4	6.1%
Never received dental care	29	43.9%	12	18.2%	10	15.2%	51	77.3%
Total	37	56.1%	18	27.3%	11	16.7%	66	100%

Table 1. Dental care seeking attitude among female prisoners.

Reason	Age (in Years)						Total	
	20-35		36-50		51-65		N	%
	N	%	N	%	N	%		
Consultation	0	0.0%	1	1.5%	0	0.0%	1	1.5%
Pain	6	9.1%	4	6.1%	1	1.5%	11	16.7%
Treatment	2	3.0%	0	0.0%	0	0.0%	2	3.0%
Don't know/Don't remember	29	43.9%	13	19.7%	10	15.2%	52	78.8%
Total	37	56.1%	18	27.3%	11	16.7%	66	100%

Table 2. Distribution according to age regarding reasons to visit dentist among female prisoners.

inmates experienced a pain during chewing the food due to poor state of their teeth and 15 (22.7%) inmates experienced bleeding from the gums while brushing due to poor state of their gums (Table 3).

Discussion

The present cross-sectional study reveals the dental health care seeking behaviour of incarcerated female inmates of Central Jail, Bhopal. It was observed that overall oral health comprising oral hygiene practices was remarkably debauched as both unawareness and illiteracy was in abundance. Thus health literacy and beyond oral health literacy was completely compromised.

It is evident that oral disease is highly related to socio-environmental and lifestyle factors. As large number of prison population is from poor socio-environmental condition this indicating a higher prevalence of poor oral hygiene practices [9]. Also, because of less access to nutritious food and increased health care morbidity oral health becomes neglected. Hurlen et al concluded that oral health is the matter of least concern and as it due to socially being deprived health is being deserted [10]. These barriers to the health care has shown a influence in our present study as it was found that 6% female inmates have never cleaned their teeth as well as oral hygiene practices among the female inmates showed that 6% of the female population never cleaned their teeth while 27.9% inmates maintain their oral hygiene once a month and 42.4% were brushing once a day. According to the survey females inmates those who are maintaining their oral hygiene regularly were maintaining by using finger (31.8%) whereas (68.2%) using toothbrush. As well as only 9% of them were using toothpaste and 30.3% did not use out. These distinct findings of the present study were not in support with the study conducted by E. Heidari et al where 70% of the prison population reported brushing their teeth twice daily even though the overall opinion of the prison issue toothbrush and toothpaste was that they were substandard [11]. Similar findings by Stanley L Wellins [12] also reported improper oral hygiene maintenance due to lack of dental care pervasiveness

in the prison population. The study done by Marcel E Salive [13] disclosed that the inmates had more missing teeth at every age and a greater percentage of unmet dental needs so are the findings of our studies In divergence by a study done by Michael Rose [14] the dental services were done efficiently and congenially with follow up so the basic difference was in the oral health care seeking behaviour.

Oral hygiene practices were of very retrograde model. Verdict in seeking health care in case of dental disorders is diminished. Although dental diseases like dental caries, gingivitis and periodontal diseases are pandemic. The illustrations of our study states 77.3% female prisoners did not receive any kind of dental care (Table 1) and very low percentage of female inmates visited dentist for consultation (1.5%), for the reason of pain (16.7%) visited 78.8% did not visit the dentist at all. Table 2 which is majorly in disparity with the study in Britain [15] where 67% of inmates last dental visit had been because of pain, swelling, infection or trauma. A further 12% gave check-up as the reason for their last dental visit and 73% claimed to have visited the dentist during the last year. Principally, their most recent dental visit was in prison (54%). Analogous study by Rouxel et al [16] quantified the same. Similarly this survey too has demonstrated the poor state of oral health and identified considerable levels of unmet dental treatment needs female inmates had more decayed and fewer filled teeth. This could be due to many challenges exists in delivering services in the prison system including service provision with respect to the security procedures, restricted number of dental sessions provided in prisons, recruitment and retention of dental staff compared with strong demand and lucrative remuneration for dentists in private practice, decreasing finance available for facilities, equipment and staffing. Other factors such as deprivation, high mobility, and poor general health may also have contributed to their barriers to obtaining access to dental services. Cunningham et al. have suggested that prisoners' high levels of anxiety, mental illness, history of substance abuse, blood borne infections and backlog of unmet dental treatment undoubtedly make them a challenging group for whom to provide dental treatment [17].

Above all, prisoner population is being neglected in all

Problems	Age (in Years)						Total	
	20-35		36-50		51-65			
	N	%	N	%	N	%	N	%
Not aware	21	31.8%	6	9.1%	5	7.6%	32	48.5%
Difficulty in biting food	11	16.7%	6	9.1%	2	3.0%	19	28.8%
Difficulty in brushing the teeth	5	7.6%	6	9.1%	4	6.1%	15	22.7%
Total	37	56.1%	18	27.3%	11	16.7%	66	100%

Table 3. Age wise distribution of problems due to state of teeth or gums among female prisoners.

course of life. Prisoners were more likely than the general female population to engage in oral health damaging behaviors and dental care seeking is seldom pragmatic the finding of our study. In a similar study by E Heidari et al remand prisoners have compromised general and oral health compared with the general population. They exhibit poor oral health, which is contributed to by their lifestyles and health behaviours [16].

Limitation of Our Study

There is a nonexistence of information about the oral health of inmates, among the studies that exist; In the light of these issues and in order to provide fundamental and valuable information on the dental characteristics and service utilization needs of prisoners inmates, this study was taken to assess the oral health status of female prisoners in Central Jails of Madhya-Pradesh.

The availability of prisoner population is limited only under-trial inmates were only and easily accessible. Other convicts, hardcore murderers, law-breakers and inmates were not reachable. So special efforts to be made on government level to take care of the oral health as health is a fundamental right. All men are born equal and are endowed by their creator with some basic rights. These rights are mainly right to life and liberty, but if any person doesn't comply with ethics of the society then that person is deprived of these rights with proper punishment. In order to ignite realization within an individual it is sometimes essential to punish a person. Imprisonment is one medium of punishment. Many experts believe that the main objective of prisons is to bring the offenders back to the mainstream of the society.

Conclusion

Improving oral health of inmates is a difficult task as it was concluded that majority of the female prison population showed very a reduced amount of concern towards dentist despite of poor oral hygiene and presence of dental problem. Being behind the bars, isolated and neglected from society and family as well, makes them underestimate their health related issues. Inmates are more likely to have disadvantaged backgrounds or come from the localities with increased level of social exclusion, with a high proportion unemployment prior to sentencing. As a consequence, oral health requirement of prisons at admission may be particularly high with a significant amount of unmet treatment needs. This study of ours is made to assess oral health care related behaviour of female prisoners to design further treatment and oral health care intensifying program in female prison wing of central

jail Bhopal.

Recommendation

As to improve the oral health of Prisoners, the following recommendations are given:

- Oral health promotion through well-structured oral health education program can create positive change in awareness.
- Regular interval screening programs to assess the oral health and treatment needs of prisoners and provision of treatment as per the need.
- 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 oral diseases.
- Suitable toothbrushes and fluoride toothpaste should be made freely available in prisons.
- Government should consider employing a full-time dentist along with a physician to serve prisons located within distinct geographical localities.
- Intervention strategies including health education on personal hygiene are required.
- There is an alarming need for building up a sustainable tobacco cessation counseling program for the inmates to help them quit tobacco; a provision for a prison dentist can be very helpful.

Acknowledgements

We bow to the almighty for giving us the opportunity to undertake this work and complete it successfully

It is our great privilege and pleasure to express our sincere and heartfelt thanks to my teachers and guide Dr. Vrinda Saxena, Professor and HOD, Department of Public Health Dentistry, Peoples Dental Academy, Bhopal, who has played an important role throughout the study. Her valuable and expert guidance, suggestions and constant encouragement at all stages of this study did much to lighten the load.

I express our deep sense of gratitude to Dr. Manish Jain, Senior Lecturer, Peoples Dental Academy, Bhopal, for his valuable guidance in the statistical analysis of this study.

We express our sincere thanks to Dr. Vidhatri Tiwari, Senior Lecturer, Peoples Dental Academy, Bhopal, for providing all the support and co-operation to carry out the study.

Our thanks are also due to one and all that have directly or in directly helped us in the completion of this study.

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