

Oral infections in a carceral environment in Mali: Case of the Bollé detention center in Bamako.

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Abstract

Introduction: Oral diseases are considered a major public health problem because of their high prevalence and incidence 60 to 90%. Oral health depends on social and environmental factors as well as strongly on lifestyle factors.

Objectives: The main objective of this study is to analyze the influence of the prison environment on the oral health status of prisoners.

Materials and Method: This is a cross-sectional descriptive study conducted in the Detention, Rehabilitation and Reinsertion Center for Women and Children of Bollé, Bamako, and involved 109 cases. The study period runs from May to September 2014 (5 months)

Results: The male sex represented 33.94% against 66.06% of females, for a sex ratio of 0.5. The age group of 13-20 years was the most represented with 58.72% of cases. The average age was 22.4 years with extremes ranging from 13 to 70 years old. Inmates who admitted to regular brushing predominated, accounting for 93.58% of the cases, of whom only those who used the toothbrush were the most represented (51.96%). The scale index was equal to 1 in 55.96% of our patients. It was 0 in 11.01% of our patients.

Conclusion: Oral infections are common in prisons, hence the importance of strengthening information and education in oral health in this environment.

Keywords: Infections; Oral; Tartar index.

INTRODUCTION

Oral diseases are described as a major public health problem because of their prevalence and high incidence 60-90%, and dental caries is considered with periodontal diseases as the fourth global scourge by the World Health Organization. Health after heart disease, cancer and AIDS [1].

Oral health depends on social and environmental factors as well as strongly on lifestyle factors. These factors are risks for most chronic diseases or protective factors, such as adequate exposure to fluoride or good hygiene. They reach mainly disadvantaged and socially marginalized populations. They have harmful effects on patients with pain, functional impairment and deterioration of quality of life [2].

In deprived areas such as prisons, characterized by poverty, lack of hygiene, poor nutrition, stress and drug addiction, the prevalence and incidence of caries and periodontal disease remains high. The management of oral problems in these social categories is also relatively weak [3].

The detrimental effects of imprisonment on health are far from being limited to the deficiencies caused by excessive sedentariness, the body becoming the locus of many physiological dysfunctions: digestive and respiratory difficulties, pains, oppressions, somatic manifestations [4].

The purpose of this study was to analyze the influence of the prison environment on the oral health status of prisoners.

MATERIALS AND METHOD

It is a cross-sectional descriptive study conducted in the Detention, Rehabilitation and Reintegration Center for Women and Children of Bollé de Bamako

We included all the detainees in the Bollé Detention Center who agreed to participate in the study, that is, 109 cases during the period May to September 2014 (5 months).

Inmates who refused oral verbal consent and those whose state of health did not permit an adequate oral examination were excluded.

We sought and obtained the approval and approval of the prison administration, and a special access authorization to the Bollé Center in Bamako was issued to us. Confidentiality and anonymity were ensured and respected, and the study did not show any physical harm to the respondents The data were collected from the survey card, entered and analyzed with the Epi info software.

RESULTS

We collected 109 inmates meeting our inclusion criteria.

The male sex represented 33.94% against 66.06% of females, for a sex ratio of 0.5. The age group of 13-20 years was the most represented with 58.72% of cases. The average age was 22.4 years with extremes ranging from 13 to 70 years (Table I).

Literate prisoners were the most represented with 56.96% of the workforce and among this group, those with the basic cycle level represented 78.69% of cases (Table II).

Inmates with a food intake of less than or equal to 3 were the most represented with 92.66% of the workforce (Table III).

Inmates who regularly ate fruit were the most represented with 27.52% of cases (Table IV).

Inmates who admitted to regular brushing predominated with 93.58% of cases, and those who used only the toothbrush were the most represented with 51.96% of cases (Table V). Inmates who brushed twice a day were the most represented, accounting for 55.88% of cases, with a special brushing time in the morning in 63.30% of cases

In our series of 109 examined subjects we found one:

Total number of decayed teeth (C) = 473;

Total number of missing teeth (A) = 73;

Total number of teeth closed (O) = 5

Number of subjects with CAD teeth = 99

In 55.96% of cases the scale index was equal to 1 and in 11.01% of cases it was equal to 0 (Table VI).

DISCUSSION

During the period of our investigation we found 109 inmates, of which the female sex represented 66,06% against 33,94% for the male sex with a sex ratio equal to 0,5, our results are opposed to those of Diouf M et al. [5] found in detainees in the Dakar region 10.7% female and 89.3% male, Souaré N. [6] enumerated in his study in 2009 in Senegal in a population of 375 detainees , 335 men and 40 women.

The prison environment is in fact an extremely male environment [7] and this strong male representation could be explained by the greater involvement of men in crime, banditry and other delinquency offenses.

In our study the age group of 13 - 20 years was the most represented with a frequency of 58.72%, followed by the age groups of 21 - 30 years (28, 44%) and 31 - 40 years (9 , 17%), for an average age of 22.4 years. Our results are consistent with most previous studies, including the

study by Diouf et al. [5] who found 58.1% of cases in the age group of 16-35 years, with an average age of 35, and in the study of Mathieu A et al [8] and that of Becart A [9].] in France, who found an average age of 29.5 in the 14 to 21 age group in Reims remand prison and a predominance of young people in the Loos-lez-Lille remand prison. with a rate of 57% of the inmates who were between 18 and 25 years old and 38% who were over 25 years old.

In Senegal in 2008 in his study Gaye K [10] in a population of 72 female-only detainees reported prevalences in the age groups of 25 - 27 years is 29.7% of cases and 20 - 24 years is 20.27 % of cases.

This shows that, both in Europe and in Africa, the prison population is mostly young, this high proportion of young people could be due to increased unemployment, rural depopulation, poverty and social loss. .

Inmates regularly brushed in 93.58% of cases. Of this workforce, 51.96% used the toothbrush for their daily hygiene and 28.43% used the toothbrush stick. The combination of these two brushing equipment (toothbrush / stick) gave a frequency of 19.61%.

Our results are much higher than those of Gaye K [10] who in Senegal in 2008, reported in her study a use of toothbrush in 36% of inmates while the combination toothbrush and sticks rubs teeth gave a frequency of 43.24%.

Compared with the frequency of brushing, 57.88% of inmates brushed twice a day on average, compared to 32.35% who brushed once and 9.81% who brushed 3 times a day. Seven inmates did not brush at a frequency of 6.42%, this trend was observed in the study of Souare N [6] where inmates used the toothbrush stick for their hygiene in 60.3% of cases, 22 5% used the toothbrush while 17.2% did not have any conventional means of cleaning their teeth.

The preferred time of brushing was in the morning with 63.30% of cases for the toothbrush against 31.19% for the stick rubs teeth.

El Amrioui M [11] in his study in Morocco on the oral state in the prison environment, with 300 detainees, found a CAD index of 18.18 and a very low oral hygiene since 52% of prisoners not have a toothbrush, and only 10.4% brush properly.

In our study the oral state was evaluated for the purpose of detecting pathologies. Oral mucosal lesions were observed in 25.69% of cases, dyschromia 64.22%, dental abrasion 46.79%, gingivorrhage 22.02%, and halitosis in 23.96% of prisoners. . Dental dislocation was present in 25.69% while the CAD index in the study population was 5.06

In Senegal's Sow I [12] study of non-carious cervical lesions in prison in Dakar, he found an abrasion rate of 12.32% (17 patients) in a sample of 375 inmates.

CONCLUSION

Oral infections are common in prisons, hence the importance of strengthening information and education in oral health in this area.

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DRAWING

Table I: Distribution of prisoners by age group

AGE TRENCH (Year)	EFFECTIVE	FREQUENCY (%)
13 – 20	64	58,72
21 – 30	31	28,44
31 – 40	10	9,17
41 – 50	2	1,83
51 - 60	1	0,92
61 – 70	1	0,92
TOTAL	109	100,00

Table II: Distribution of prisoners by level of study

LEVEL OF SCHOOL	EFFECTIVE	FREQUENCY (%)
Basic level	48	78,69
Secondary level	6	9,84
Higher level	7	11,47
Total	61	100,00

Table III: Inmate Distribution by Number of Food Catches

NUMBER OF FOOD SOCKETS	EFFECTIVE	FREQUENCY (%)
≤ 3 sockets	101	92,66
4 to 6 sockets	7	6.42
≥ 6 sockets	1	0.92
Total	109	100,00

Table IV: Distribution of prisoners by food consumed

FOOD	EFFECTIVE	FREQUENCY (%)
Sweet drink	10	9,17
Candy	5	4,58
Aloco (plantain)	2	1,83
Fruits	30	27,52
Biscuit	6	5,50
Peanut	4	3,67
Other	4	3,67

Other: dates (2); honey (1); yoghurt (1)

Table V: Inmate Distribution by Material Used

EQUIPMENT	EFFECTIVE	FREQUENCY (%)
Toothbrush	53	51,96
Stick rubs teeth	29	28,43
Brush + stick rubs teeth	20	19,61
Total	102	100,00

Table VI: Distribution of prisoners by tartar index

TARTAR INDEX	EFFECTIVE	FREQUENCY (%)
0	12	11,01
1	61	55,96
2	29	26,61
3	7	6,42
Total	109	100