

Original Article

HEALTH AND DISEASE STATUS OF FEMALE INMATES IN CENTRAL JAIL KARACHI: A CROSS-SECTIONAL STUDY

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ABSTRACT

Background: Globally, female prisoners represent about 7% of the total prison population. Women in prisons need special treatment due to their separation from their communities, homes, and families. There is a high incidence of chronic diseases among prisoners in many parts of the world.

Objective: The study aimed to identify the general health condition among female inmates in Karachi prison.

Material and Methods: A cross-sectional study was conducted during 2019. Data were collected from 100 women prisoners in Central Jail, Karachi using a non-probability convenient sampling technique. A pre-designed and pre-tested questionnaire was used to collect the data about health issues among women prisoners. Descriptive analysis was done and a Chi-square test was used to observe the association of different variables with disease status and time in imprisonment. p-value <0.05 was considered statistically significant.

Results: Out of 100 inmates, 30% suffered from different health problems and 49% were imprisoned for more than 6 months. The majority of the prisoners (58%) were addicted, 96% used tap water for drinking and 73% were satisfied with sanitary conditions in prison. Statistically significant (p<0.05) difference was found between hypertension and allergic diseases with time spent in prison.

Conclusion: Female prisoners face many health problems during their imprisonment. Although sanitary conditions are satisfactory and treatment facility is available in prison, a significant proportion of female prisoners suffer from different acute and chronic diseases.

Key Words: Prison, Health, Women

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INTRODUCTION

The terms Jail and Prison are often used interchangeably but Jail is usually defined as the place in police stations where people who have been arrested or charged with a

crime are held until they are either released or sentenced to prison and Prison is defined as a place where people who have been convicted of crimes are sent to serve their sentences. The jails and prisons are usually operated under the direct control of the district and provincial government, respectively.¹

Worldwide, females constitute about 7% of total prisoners.² Prisoners are among the most susceptible population for acquiring a wide range of acute and chronic diseases. Communicable diseases are especially common in this population as the prisoners from different communities, carrying different risk factors are kept together for a varying times.³ Moreover, they are also exposed to adverse living conditions

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prevailing in the jail, which includes poor management, inadequate food provision, congested and over-populated accommodation, poor ventilation, and sanitary conditions.⁴

Health care issues among women prisoners are rising day by day, which are not usually addressed satisfactorily by the authorities. The most frequently seen health problems among female inmates are poor hygiene, mental issues, communicable diseases, smoking, and substance abuse.⁵⁻⁷

In the United States, studies have demonstrated higher levels of hypertension, diabetes, asthma, obesity, and other major health issues among such female inmates.⁸ In Australia, at least one chronic health issue was found out in 81% of female prisoners.⁹ Nevertheless, the study conducted in Japan showed a reduction in blood pressure and dyslipidemia in female prisoners. It could be likely due to the enforced lifestyle changes in jails of Japan.¹⁰

A recent study conducted in Pakistan reported that 3.8% of female prisoners were Hepatitis C positive, 12.8% had hypertension, 18.8% had depression, 3.8% had active tuberculosis, and 83% of female prisoners were not satisfied with the available healthcare services in jail.¹¹

Women's health has a significant impact on the community as a whole. After a thorough search for the relevant literature, it was identified that published data on this issue is scarce in Pakistan. The objective of this study is to identify the general health condition among female inmates in Karachi prison.

MATERIAL AND METHODS

A cross-sectional study was conducted at Central Jail, Karachi during 2019. A total of 100 women prisoners who gave informed consent were included using the non-probability convenient sampling technique. The approval was obtained from the Ethical Research Committee of Hamdard College of Medicine and Dentistry, Karachi, Pakistan. The study tool used in our study was a pre-designed and pre-tested questionnaire. It

was in Urdu. The questions were open-ended. Medical terms were avoided as far as possible or were explained by the researcher and were filled up with their support. The self-esteem and respect of the respondents were assured. Before the administration of the questionnaire, a briefing was given to the authorities and prisoners on the intent and different aspects of the study. It was also emphasized that collected data will only be used for research purposes.

Collected data were entered in SPSS version 22. Descriptive analysis was done and a Chi-square test was used to observe the association of different variables with disease status and time in imprisonment. p -value <0.05 was considered statistically significant.

RESULTS

A total of 100 women prisoners were asked about their general health condition. It has been found that 70% of the respondent had no complaint of any disease, while 30% showed at least one sign or symptom. Most of the prisoners (61%) were less than or equal to 30 years of age. The majority (81%) of the inmates were not natives of Sindh compared to only 19%. Half of the participants (51%) were in prison for less than or equal to 6 months. A significant proportion (96%) of women prisoners were drinking tap water and (73%) responded that sanitary conditions in jail were satisfactory. Almost half of the prisoners (58%) were addicted to the pan, gutka, cigarette smoking, and even intravenous drug abuse. (Table 1)

Regarding the presence of different types of diseases, joint problems (34%) were the most frequently present among women prisoners, followed by hypertension (30%), skin problems (28%), allergic disorders (27%), respiratory problems (19%), psychotic illness (14%) and diabetes mellitus (11%). Statistically significant ($P < 0.05$) relationship has been found between hypertension and allergic disorders and time spent in prison (Table 2).

Table 1: Relation of different variables with disease status

Variable	Health Problems n = 30 (%)	Normal n = 70 (%)	Total n = 100	p-value
Age (years) Mean \pm SD (31 \pm 11)				
≤ 30	14 (46.7)	47 (67.1)	61	0.074
> 30	16 (53.3)	23 (32.9)	39	
Residence				0.415
Sindh	26 (86.7)	55 (78.6)	19	
Punjab	4 (13.3)	15 (21.4)	81	
Time since imprisonment				0.999
≤ 6 months	15 (50)	36 (51.4)	51	
> 6 months	15 (50)	34 (48.6)	49	
Type of Drinking Water				0.581
Tap	28 (93.3)	68 (97.1)	96	
Mineral	2 (6.7)	2 (2.9)	4	
Sanitary Conditions				0.338
Satisfactory	24 (80)	49 (70)	73	
Not Satisfactory	6 (20)	21 (30)	27	
Addiction				0.277
Yes	20 (66.7)	38 (54.3)	58	
No	10 (33.3)	32 (45.7)	42	
Delivery in Jail				0.665
Yes	1 (3.3)	5 (7.1)	6	
No	29 (96.7)	65 (92.9)	94	
Treatment facility in Jail				0.05
Yes	21 (70)	61 (87.1)	82	
No	9 (30)	9 (12.9)	18	

Table 2: Association of different diseases with time in prison

Disease	Time in prison ≤ 6 months n = 51	Time in prison > 6 months n = 49	Total n = 100	p-value
Hypertension				0.004
Yes	22 (73.3%)	8 (26.7%)	30	
No	29 (41.4%)	41 (58.6%)	70	
Diabetes				0.118
Yes	3 (27.3%)	8 (72.7%)	11	
No	48 (53.9%)	41 (46.1%)	89	
Respiratory Problem				0.802
Yes	9 (47.4%)	10 (52.6%)	19	
No	42 (51.9%)	39 (48.1%)	81	
Skin Problem				0.007
Yes	8 (28.6%)	20 (71.4%)	28	
No	43 (59.7%)	29 (40.3%)	72	
Joint Problem				0.091
Yes	13 (38.2%)	21 (61.8%)	34	
No	38 (57.6%)	28 (42.4%)	66	
Allergic disorder				0.003
Yes	7 (25.9%)	20 (74.1%)	27	
No	44 (60.3%)	29 (39.7%)	73	
Psychotic illness				0.149
Yes	10 (71.4%)	4 (28.6%)	14	
No	41 (47.7%)	45 (52.3%)	86	

DISCUSSION

This descriptive cross-sectional study was carried out to identify the general health condition among female inmates in Karachi prison. Almost every prison in Pakistan is inefficient in providing adequate accommodation for the prisoners as they are mostly overpopulated. Due to poor resource management, the old buildings are in miserable condition. Their dilapidated structures could be quite hazardous for the health of inmates.¹² This overcrowding is coupled with poor sanitary conditions which further worsen the health issues.^{13,14} Most of the cells accommodated up to 30 inmates with a single toilet and poor sewerage system. Furthermore, this lack of space left the prisoners with no choice but to sleep on the floor posing detrimental health effects. To make the conditions worse, these prisons are also inhabited by the children in the same living conditions as their inmate's mothers. Some of these unfortunate children were given birth on the premises of the jail. The prevalence of deliveries within jail premises was found out to be just 6%.¹⁵ The segregation in prisons violates human dignity and causes emotional torment for the female prisoners.¹⁴ The rooms, originally built to accommodate not more than ten prisoners with moderately to severely affect hygienic conditions of living standards. Hence, the prisoners are exposed to multiple risk factors, increasing their vulnerability to a vast array of different diseases.¹⁵

In our study, 61% of the participants are equal to or less than 30 years of age. A study from Lahore reported that 48% of women in prisoners were below 30 years of age.¹⁶ Sanitary conditions in prison are found satisfactory by 73% of the participants, however several other studies in Pakistan reported that sanitary conditions in prisons were pathetic and unsatisfactory.^{17,18} Complete details of differentials of addictive behavior also need to be evaluated. More than half (58%) of the women prisoners were using different types of addictive substances. Studies found that drug

addiction among women was on the rise in prisons of Pakistan.^{12,19}

Different types of chronic diseases were also prevalent among women in prison. Due to sleeping on the floors and less exposure to sunlight, 34% of them were found to be experiencing joint problems. Mental dissatisfactions, confinement, and severely affected living standards have made them vulnerable to mental trauma with almost 14% affected with some kind of psychotic illness. The non-communicable diseases have emerged as a health crisis and are increasing globally. Mental stress and trauma in prisoners be being prone to hypertensive state. About 30% of the inmates are hypertensive and 11% diabetic. Similar findings are revealed from other studies reporting a high prevalence of hypertension, diabetes mellitus, musculoskeletal disorders, mental illness, and communicable diseases among women prisoners.^{11,14,20} Another study in Karachi highlighted the high prevalence of hypertension among prisoners.²¹ Statistically significant relation and the ship was observed between hypertension and allergic disorders among women prisoners and time since imprisonment (p-value <0.05)

Despite the availability of medical and treatment facilities, the inmates are still experiencing illness and the prevalence of diseases. It is of utmost importance to identify the cause of such disease prevalence and factors playing role in disease causation. In other words, a complete social autopsy of the disease patterns needs to be tracked down to identify the limitations of the health care delivery system which has failed to reduce the disease prevalence among the prison inmates. The limited number of participants, time constraints, and feelings of insecurity were among the limitations of this study.

CONCLUSION

The general health condition among female prisoners is unsatisfactory. Hypertension and allergic disorders are highly prevalent in women prisoners. Although the sanitary

condition is satisfactory, there were no proper arrangements of hygienic food and water, lack of ventilation, and overcrowding which predisposes these inmates to various health problems.

AUTHOR'S CONTRIBUTION

NM: Study design, Statistical analysis and Editing of manuscript

SMM: Data analysis, Interpretation, Editing and Final proofreading

NS: Data collection and Manuscript writing

SIAF: Data collection and Manuscript writing

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