

Gender differences in the health status of the imprisoned population in Kot Lakhpat Jail in Pakistan

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ABSTRACT

Background: The prison population of any country is a high-risk population because of a lack of access to regular health care facilities. This research was planned to assess the gender differences in the health status of the imprisoned population of Lahore.

Patients & Methods: An analytical cross-sectional study was conducted in Kot Lakhpat Jail in the province of Punjab, near Lahore, from January to August 2019. After getting permission from Inspector General, Police of Punjab, a sample of 320 inmates of Kot Lakhpat Jail was collected through a simple random sampling technique. Data was collected on a structured questionnaire based on history and examination. Data was entered in SPSS version 23, and the chi-square test was applied to assess the gender differences in health status, **p-value ≤ 0.05 was taken as significant.**

Results: General examination revealed that 143 (44.7%) had refractory errors, and 34 (10.6%) had mild deafness. Common infection in males were scabies ($p = 0.002$), Sore throat ($p = 0.015$) and urinary tract infections ($p = 0.015$). Hepatitis C was present in high frequency (9.1%). Assessment of sexually transmitted diseases showed discharge in 10.6%, vesicular herpetic eruptions in 8.8%, and ulcers in private parts in 3.8% of the sample. Males showed a significantly high frequency of hypertension ($p = 0.052$) and arthritis ($p = 0.024$). Evaluation of mental health status revealed significant high rates of depression in females ($p = 0.000$) and a high frequency of insomnia ($p = 0.000$). Social health problems revealed a high frequency of smoking in males ($p = 0.000$) and feeling of stigmatization in females ($p = 0.000$).

Conclusion: Male jail inmates showed high frequencies of scabies, sore throat and urinary tract infection, and hypertension. Females showed higher rates of depression, insomnia, and feeling of stigmatization.

Keywords:

Imprisoned population, Jail inmates, Physical health, Mental health, Social health

INTRODUCTION

The imprisoned population of a country constitutes a high-risk group with special health care needs because they are emotionally and physically more susceptible to ill conditions of health.¹ The United Nations estimates that the world prison population rate, on the basis of the national population levels, is 144 out of 100,000 people.² World's highest incarceration rate has been reported in the USA, which is 850 per 100,000 population in 2020.³ High rates of imprisonment have also been reported in China and India.⁴

According to a report by United Nations in 2015, the total prison population in Pakistan was 80,169, which rose to 83,718 in 2018. This constitutes 69.1% as pre-trial detainees or remand prisoners, 1.8% females, 1.7% juveniles, and 1.2% foreign prisoners.⁵ Pakistani jails detain 57% more inmates than their expected capacity, making them overcrowded and a precursor to many ill-health hazards.⁶ The most populated province

of Pakistan, Punjab has an official capacity of 21,527; however, it has a total of about 53,000 prisoners.⁷

Pakistan faces a double burden of disease; both communicable and non-communicable diseases show high prevalence in the imprisoned population.

Many infectious diseases constitute high morbidity rates in this marginalized population, including tuberculosis, Hepatitis B and C, scabies, and sexually transmitted diseases.⁸ The most common infection which is affecting a large number of incarcerated populations in Pakistan is tuberculosis. The physical health of this population also shows a higher burden of hypertension, diabetes, chronic obstructive pulmonary diseases, obesity, and poor oral health.⁹

The mental health of the prisoners also needs special attention as high rates of psychiatric morbidities are associated with imprisonment globally. High rates of depression, anxiety, state of fear, epilepsy, and behavioral problems have been reported in the female incarcerated population even in the USA.¹⁰ Imprisonment itself brings many social health issues to the incarcerated population. A number of social implications reported even after their detention include

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social isolation, smoking, drug abuse, and sexual violation.²

There is a dire need to determine the health status of the imprisoned population in Lahore, Pakistan. This research aims to comprehensively deal with the assessment of all three domains of human health, physical, mental and social well-being, in inmates of jails in Lahore.

PATIENTS & METHODS

An analytical cross-sectional study was conducted from January to December 2019 on both male and female populations imprisoned in Central Jail at Kot Lakhpat Lahore. A total number of 320 inmates were included in this study, irrespective of age and gender, with their consent to participate in this study. All jail inmates were included except children, who were inhabitants during the time of the study. Exclusion criteria included all those diagnosed with severe mental health problems and who were unable to respond, those who were extremely violent, those who were detained in isolation cells, and those who were not willing to participate. A simple random sampling technique was used to collect data on the sample. Data was collected by trained health professionals, medical faculty members, and their associate medical students. Data collectors were trained for the conduction of interviews and in conducting medical examinations. Data for socio-demographic profile and medical history was collected through a one-to-one interview technique in the local language. After general and systemic examination, observations were recorded in a structured questionnaire with Urdu translation. Before data collection, Institutional review board clearance was obtained with IRB certificate number M-18/014/CM, and permission was taken from the Inspector General Police of Lahore. Security clearance of all involved students and faculty was obtained. Data was collected after getting all permissions and informed consent of participants. Quantitative data was collected in the form of the mean age in years, meantime of punishment, blood pressure, and blood sugar measurements and then was converted into qualitative variables by labeling them into groups of hypertension and diabetes. Prisoners were examined from head to toe, and each positive finding of disease was recorded. The clinical findings were matched with history. Data was also collected for variables assessing the mental and social well-being of the participants as well. Data were coded, entered, edited, and analyzed using SPSS version 23. The chi-square test was applied to assess the gender difference, and a p-value of ≤ 0.05

was kept as significant. Data was presented in the form of tables and graphs. Data was collected anonymously, and confidentiality of the data was strictly maintained.

RESULTS

The mean age of jail inmates was 37.87 years with a standard deviation of ± 11.749 . The majority of the prisoners, 196 (61.3%), were males. Educational status showed that 101 (31.6%) were Illiterates. Sixty-eight (21%) were laborers. Out of 320 prisoners, 204 (63.7%) were Married. Geographical distribution showed that 127(39.7%) were from Lahore, 166 (51.9%) belonged to rural areas of the vicinity (Table 1).

Table 1. Socio demographic profile of participants

Characteristics	Frequency (n) (n=320)	Percentage (%)
Gender		
Male	196	61.3
Female	124	38.8
Educational status		
Illiterate	101	31.6
Primary	55	17.2
Middle	73	22.8
Matric	53	16.6
Intermediate	18	5.6
Graduate	11	3.4
Masters	9	2.8
Occupational status		
Professional worker	12	3.8
Laborer	68	21
Government official	2	0.6
Police	6	1.9
House wife	69	21.6
Skilled worker	55	17.1
Do nothing	20	6.25
Business	23	7.2
Student	21	6.6
Land lord	44	13.8
Marital status		
Married	204	63.8
Unmarried	93	29.1
Widowed	21	6.6
Divorced	2	0.6
Residential area		
Lahore	127	39.7
Out of Lahore	193	60.3

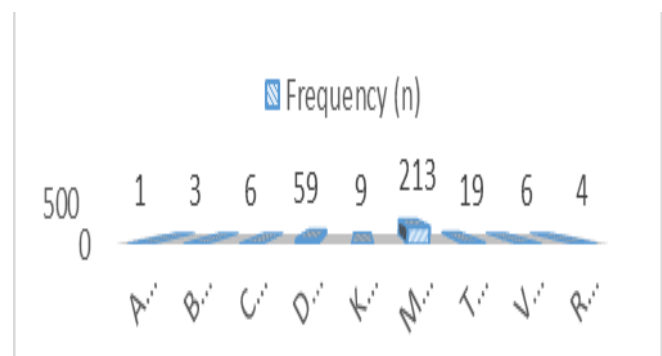


Figure 1. Distribution of offenses by Jail inmates.

Table 2. Physical health profile of the prisoners

Type of diseases	Male	Female	Frequency (n=320)	Percentage (%)	p-value
Eye diseases					
Eye infections	28 (57.1%)	21 (49.2%)	271	15.3	0.521
Cataract	8 (44.4%)	10 (55.6%)	18	5.6	0.132
Refractory Errors	84 (58.7%)	59 (41.3%)	143	44.7	0.408
Ear Infections	27 (71.1%)	11 (28.9%)	38	11.9	0.186
Deafness	27 (67.6%)	11 (32.4%)	34	10.6	0.418
Nasal polyps	16 (84.2%)	3 (15.8%)	19	5.9	0.034
Communicable diseases					
Tuberculosis	6 (66.7%)	3 (33.3%)	9	2.8	0.735
Hepatitis B	8 (66.7%)	4 (33.3%)	12	3.7	0.695
Hepatitis C	15 (51.7%)	14 (48.3%)	29	9.1	0.270
Diarrheal diseases	13 (48.1%)	14 (51.9%)	27	8.4	0.144
Urinary tract infections	47 (74.6%)	16 (25.4%)	63	19.7	0.015
Sore throat infections	39 (76.5%)	12 (23.5%)	51	15.9	0.015
Skin Infections	38 (54.3%)	32 (45.7%)	70	21.9	0.176
Scabies	34 (82.9%)	7 (17.1%)	41	12.8	0.002
Sexually transmitted diseases					
Urethral/vaginal discharge	19 (55.9%)	15 (44.1%)	34	10.6	0.497
Ulcers in private parts	9 (75%)	3 (25%)	12	3.8	0.319
Vesicular eruptions	20 (71.4%)	8 (28.6%)	28	8.8	0.247
Non-communicable diseases					
Hypertension	44 (52.4%)	40 (47.6%)	84	26.3	0.052
Diabetes	14 (53.8%)	12 (46.2%)	26	8.1	0.419
Heart Disease	12 (57.1%)	9 (42.9%)	21	6.6	0.689
Arthritis	61 (53%)	54 (47%)	115	35.9	0.024

The offense reported by the majority of inmates, 213 (66.6%), was murder, followed by drug dealing 59 (18.4%). (Figure 1) The mean duration of punishment was 14.69 ± 19.010 years.

On general examination, the most common physical health problem was reported as refractory errors. They were present in 143 (44.7%) individuals. Nasal polyps were reported by 19 (5.9%) individuals, with a significantly high proportion in males ($p = 0.034$). The most common problem was urinary tract infections, present in 63 (19.7%) of the inmates. Followed by Out of 320 inmates urethral/vaginal discharge was present in 34 (10.6%) of the inmates. Sore throat 51 (15.9%). An alarming situation was that, in a total of 320 individuals, 29 (9.1%) had hepatitis C. **Out of 320 prisoners' diarrheal disease was present in 27 (8.4%) of the inmates.** Hypertension was the most common non-communicable disease in this population, where 84 (26.3%) that they were reported hypertensive. Other minor complaints included that 92 (28.8%) had acidity, 15 (4.7%) had allergy, 6(1.9%) had asthma, 40 (12.5%) had body aches and pains, 24 (7.5%) had constipation, 8 (2.5%) had dental carries, 4 (1.3%) had fractures, 4 (1.3%) had urinary obstruction, 9 (2.8%) had Vertigo. Only 9 (2.8%) presented with other physical disabilities (Table 2).

The mental health profile showed alarming figures. Out of 320 prisoners, 160 (50%) were

depressed, 199(62.2%) reported an anxiety state, and 138 (43.1%) had mood tantrums. Out of 320 prisoners, 95(29.7%) were smokers. 17 (5.3%) used to take Alcohol, and 29 (9.1%) were drug abusers. Although in Kot Lakh Pat Jail, there was a medical center and a medical doctor on duty, but 247 (77.2%) reported that they had access to medical facilities, 180 (56.3%) used to have regular checkups in prison, 198 (61.9%) used to get necessary medication for leisure time activities. Out of 320 inmates, 65 (20.3%) used to watch TV, 117 (36.6%) used to spend time reading, 89 (27.9%) participated in vocational activities. 252 (78.8%) were regularly visited by their families. Out of 320 inmates, 54 (16.9%) were visited once a week, 48 (15%) were visited fortnightly, 96 (30%) were visited monthly, 98 (30.6%) were visited more than one month, and 24 (7.5%) were never visited. (Table 3)

DISCUSSION

The socio-demographic profile of participants showed that the mean age in prison is 37.87 ± 11.749 years, while in the United States, the age group of 36-40 years constituted 18% of the total number of prisoners.¹¹

Results of this study revealed that the majority of the participants were male (61.3%). According to Ethiopian prison statistics, 98% of the prisoners were males in 2019.¹² This study also shows that 67% of the inmates are imprisoned on charges of murder and

Table 3. Mental and social health profiles of the participants

Characteristics	Male	Female	Frequency (n)	Percentage (%)	p-value
Mental health					
Depression	78 (48.8%)	82 (51.3%)	160	50	0.000*
Anxiety	119 (59.8%)	80 (40.2%)	199	62.2	0.494
Mood tantrums	88 (63.8%)	50 (36.2%)	138	43.1	0.421
Violent behavior	36 (58.1%)	26 (41.9%)	62	19.4	0.566
Suicidal thoughts	25 (52.1%)	23 (47.9%)	48	15	0.157
Insomnia	41 (43.6%)	53 (56.4%)	94	29.4	0.000*
Social health					
Smoking	79 (83.2%)	16 (16.8%)	95	29.7	0.000*
Alcohol intake	11 (64.7%)	6 (35.3%)	17	5.3	0.764
Drug abuse	21 (72.4%)	8 (27.6%)	29	9.1	0.196
Social isolation	52 (55.9%)	41 (44.1%)	93	29.1	0.210
Feeling of stigmatization	43 (40.6%)	63 (59.4%)	106	33.1	0.000*

18.4% for drug-related crimes. In comparison, a US-based statistical report states that 46.2% of prisoners were imprisoned due to drug charges.¹¹

Regarding general physical health, this study revealed that 21.9% of inmates were suffering from skin infections, and the prevalence of scabies was 12.8%, with high frequency in males. While in the west region of Cameron, 32% of the jail inmates had scabies.¹³

Results of this study showed that 15.3% of prisoners had eye infections, and 44.7% of them had refractive errors. In a local study conducted in the District jail, Lahore, it was determined that 4.07% of the prisoners had myopia, 3.33% hypermetropia, and 2.2% astigmatism.¹⁴ In this study, ear infections were found in 11.9% of prisoners, and mild deafness was reported by 10.6% of the prisoners. According to a study conducted on Australian prisoners, 12% of inmates were found to have hearing loss in at least one ear, and 58% of prisoners had other hearing issues.¹⁵

Regarding communicable diseases, 15.9% of prisoners suffered from sore throat infections, 2.8% had tuberculosis. Similar findings were observed in a local study conducted in Baluchistan, which revealed that local jail showed 2% of the population was affected with tuberculosis.⁵ In this survey, 3.8% of prisoners suffered from Hepatitis B and 9.1% of prisoners suffered from Hepatitis C. While Ahmad Wali observed that the frequency of Hepatitis B was 2.8% and hepatitis C was 7.29% in jail of Baluchistan.⁵ Urinary tract infections were reported by 19.7% whereas in a Nigerian study a higher prevalence of UTI was noted as 77.9% because of poor sanitary conditions in Jail.¹⁶

Sexually transmitted diseases are commonly reported in prisoners. In this study, 10.6% of prisoners had urethral/vaginal discharge, 3.8% of prisoners had genital ulcers, and 8.8% had vesicular eruptions. While a study published in 2020 in the same Kot Lakh pat jail

revealed that 42% of the jail inmates had sexually transmitted diseases.¹⁷

Non-Communicable diseases are also prevalent in the prisoners' population, where 26.3% of inmates were discovered to be hypertensive, 8.1% had diabetes mellitus, and 6.6% had heart diseases. In comparison, a US-based prison study shows that 18.8% of inmates were hypertensive, 4.2% had diabetes mellitus, and lastly, 1.7% had ischemic heart disease.¹⁸

Imprisonment affects mental health. Half of the prisoners, 50%, were assessed to be suffering from depression, 62.2% reported to have anxiety, 43.1% had mood swings, 19.4% exhibited violent behavior, 15% had suicidal thoughts during their stay in prison, and 29.4% have insomnia. The results revealed that the female imprisoned population suffered from mental health issues more in comparison to male inmates. A study conducted in Kasur Jail of Lahore district revealed depression in 18.75% of the jail inmates, 10.42% had anxiety, and 1.47% reported panic attacks.¹⁹ This is much lower than the value obtained in this current study.

In this present survey, prisoners were also asked about their social health issues. It has been estimated that 29.7% of prisoners were smokers, 5.3% of prisoners were alcohol abusers, and 9.1% confirmed that they abuse drugs. A sociological analysis of the combined jail life of prisoners in Khyber Pakhtoon Khawa showed that the majority of the prisoners were involved in drug abuse.²⁰

Imprisonment produces a feeling of guilt, and among many prisoners, 29.1% preferred to stay in isolation, and 33.1% reported the feeling of stigmatization. These effects on social health were significantly present in high frequency affecting the female population of this study. A study conducted in Texas on a sample of 1031 inmates deduced that most

did not feel the stigma of being incarcerated.²¹ Another study also counted that 76% of prisoners were unsure of being socially accepted and employed after release from jails due to the stigma attached to incarceration.²²

Out of 320 surveyed prisoners, 77.2% responded that there are medical facilities in prison. Pakistani prisoners have health facilities, but according to a Punjab-based study, in only 17% of prisons, all posts in health facilities are filled. 50% of posts were vacant in prisons.²³ Majority of the prisoners, 56.3% prisoners had regular checkups during their tenure of punishment. The study about prisons in Punjab reported that 43% of prisoners said that they receive treatment within 2 hours of diagnosis, whereas a larger number, 57%, complained that their treatment is delayed for about 15 days.²³

In this study, prisoners were asked about their free time activities, and 20.3% said they watch TV, 36.6% read, 27.9% engaged in vocational activities. In Tanzania, prisoners receive vocational training, out of which 52% engage in agriculture and 24% in industries.²⁴

The strength of the study included an adequate sample size with a probability sampling technique which reduces the researcher's bias. A thorough literature search has reduced the element of the confounders. One of the limitations of the study is that it is only conducted in one of the three jails of District Lahore, so the results cannot be generalized to all jail inmates of Lahore. There is a dire need to provide health care services provided to this high-risk group not only for physical ailments but for mental health, and social health assessment should be incorporated too.

CONCLUSION

Male jail inmates showed high frequencies of scabies, sore throat and urinary tract infection, and hypertension. Females showed higher rates of depression, insomnia, and feeling of stigmatization.

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