# PSYCHIATRIC MORBIDITY AMONG JAIL IN-MATES

#### Dr. Muhammad Arshad<sup>1</sup>, Muhammad Aslam Lodhi<sup>2</sup>

ABSTRACT...Objective: (1) To find out the prevalence of psychiatric disorders among prison population. (2) To find out whether any association exist between psychiatric disorders and different demographic variables. (3) To assess the severity of the problem and need for the prevision of psychiatric services to jail inmates. Study Design: Crossectional study. Period: Six months starting from June 5th 2007 to November 30th 2007. Setting: Kot Lakpat Jail. Lahore. Method: All the prisoners who had been sentenced by session court for the crime of murder were the target of the study Sample Size: Five hundred cases were interviewed to complete the study. The study had a 2 stages design. During the first stage all the randomly selected prisoners (18 or more than 18 years of age and sentenced for the charge or murder) were called in the library of the jail and given screening instrument. The GHQ-12 was completed by the prisoner on voluntary basis with minimal explanation. If the prisoner was unable to read or understand assistant researcher, jail Medical officer had to read it in front of the prisoner and record his responses. In this way expected cases were selected and screened out. In the second stage diagnostic interviews were administered by the author on the same day to all the prisoners who scored two and above on the GHQ-12 and 1/10th of those who were low scores (1 or 0). These responses were recorded on rating forms. The author was blind to the scores of GHQ-12. Results Five hundred jail inmates were interviewed in the study. Out of those total 500 prisoners 176 (35.2%) prisoners were GHQ-12 positive cases while 324 (64.80%) prisoners were GHQ-12 negative (Table I). The difference was statistically highly significant (P<0.00001). Conclusions: In this study the prevalence of minor psychiatric morbidity was assessed. Five hundred randomly selected prisoners were interviewed. Out of them 397 prisoners were selected from open prison and 103 prisoners from closed prison. In the first stage GHQ-12 was administered to detect the cases. In the second stage PAS was administered to all high score (2 or above) and 10% of low scores. PAS detected minor psychiatric morbidity like depression, anxiety, panic disorder and phobic disorders. Diagnosis was based on DSM-111-R criteria. Their demographic characteristics were also obtained and comparison was made among open and closed prisoners.

Key words: GHQ-12, jail inmate, PAS, Close prisoner, open prisoner

Article Citation: Arshad M, Lodhi MA. Psychiatric morbidity among jail inmates. Professional Med J 2015;22(4):451-459.

# INTRODUCTION

1. MBBS ,FCPS(Psychiatry)

and Behavioral Sciences Independent medical college /

Head of department of Psychiatry

University Hospital Faisalabad

Department of Psychiatry and

University Hospital Faisalabad

Head of department of Psychiatry and

Assistant Professor

2. Assistant Professor

Behavioral Sciences Independent medical college /

Correspondence Address:

Independent medical college / University Hospital Faisalabad

Dr. Muhammad Arshad Assistant Professor

**Behavioral Sciences** 

Article received on:

Accepted for publication:

Received after proof reading:

10/09/2014

22/11/2014

17/04/2015

It is a known fact that prisons contain a considerable number of psychiatrically disturbed people. In the survey of brixton prisoners who had been sentenced to imprisonment, 20% of men had psychotic illness and these were just over 40% of those who had been identified as having some other mental disturbance.<sup>1</sup>

In a survey done by institute of psychiatry in 1972, it was estimated that one third of all sentenced prisoners could reasonably be regarded as psychiatric cases. It has been reported that psychiatric disorders are particularly frequent among offenders sentences to life imprisonment.<sup>1</sup>

A number of studies among jail inmates also showed increased prevalence of depression as compared general population. Rasch studies that among the prisoners who had been serving life imprisonment, about half of the study group were highly disturbed and majority of them were suffering from depression.<sup>1</sup>

Sapsford studied both reception and midterm men among prisoners and found that about 46% and

38% were suffering from depression respectively. Heather found that 56% of his indefinite prisoners were dysthymic.<sup>1</sup>

All probation officers in inner London and got information about "lifers". About 12% of them both men and women were suffering from depression illness.<sup>1</sup>

A person with severe depression disorder may commit homicide because of persecutory belief or the patient has delusion for example that world is too dreadful a place for him and his family to live in. he then kills his spouse and children to spare them from horror of the world. The killer often commits suicide afterward. A mother suffering from postpartum disorders may sometimes kill her newborn child or her older children. Occasionally ideas of guilt and unworthiness lead depressed patients to confess to crimes that they did not commit.<sup>2</sup>

There are many general reasons that further increase the prevalence among jail inmates. At the top are the meager psychiatric services available to these inmates who are already neglected not only from psychiatric point of view but also deprived of better medical services. The jail medical officers are general practitioners usually having no training in psychiatry. Therefore, they miss many psychiatric.<sup>9</sup>

Out of various psychiatric disorders missed by physicians and general practitioners depression is more likely to be missed because only small number of depressives present with symptoms that are very "clearly depressive in type.<sup>9</sup>

Besides various adverse environmental conditions like poor diet, unhygienic conditions and overcrowding, there are many psychosocial stressors like separation from family members economic problems especially when the prisoner is the only earning members of the rest of the family, fear of persecution of family members by enemies who are at times unable to defend themselves Court hearing, fear of death sentence, hearing the news of prisoners being hanged even anywhere in country further jeopardize the condition and may contribute in the etiology of various psychiatric disorders.

Depression is more missed among jail inmates because besides various reasons mentioned above, various symptoms of the illness are not only taken lightly but also ignored even when presented by the prisoner or observed by the doctor. Weeping, low in spirits and sadness are the cardinal features of depression but usually are taken as normal reaction to imprisonment and adverse environmental conditions.

Besides all the physical and psychosocial problems which the prisoners are facing in the jail, the closed prisoners are a group that suffers the most.

All the physical and psychosocial stressors mentioned, further increase the likelihood of developing psychiatric disorders especially depression.

Hence keeping in mind the increased prevalence and lower detection rate of psychiatric disorders among jail inmates it is understandable that it creates a mental health problem that needs attention and treatment. Setting up the better psychiatric services not only increase the health and performance of jail inmates but also make them more cooperative, productive and tolerant hence decreasing the burden and tension of administrative personnel's dealing with them.

Keeping in mind our socio cultural background it is easy to expert that for the problem will be of more severity in Pakistan, due lot of social economic and medical problems. Very little work has been done among jail inmates in Pakistan to my knowledge.

Early detection and treatment of psychiatric disorder among jail inmates would a positive step to the solve this problem. It would decrease the burden of society.

Keeping in mind the above mentioned facts about the importance of the work in this area, I chose

this topic for my study. The identification of size and severity of the problem was first step in this regard.

To achieve this goal, the present study was planned to find out the prevalence of psychiatric morbidity among jail inmates.

# **MATERIALS AND METHODS**

# **Place of study**

A pilot study was conducted at camp jail, Ferozpur Road, Lahore. One hundred random cases were taken into the study. Later the main study was conducted at Central Jail, Kot Lukput.

#### **Permission for study**

To enter into jail was a great problem due to a lot of security measures undertaken for prisoners. So a special permission was taken from inspector General, Punjab prisons to interview the prison inmates.

# **Target population**

All the prisoners who had been sentenced by session court for the crime of murder were the target of the study. The sentence could be of any time e.g death sentence, life imprisonment or imprisonment of lesser duration with or without the penalty of paying money of variable amount to the offended party or to the government.

#### Sample size

Five hundred cases were interviewed to complete the study.

# **Sample selection**

Five hundred cases were selected out of the total population of prison. A register was maintained by jail authorities that contained total number of prisoners. The prisoners selected for the study were taken randomly.

# **Inclusive criteria**

- All the jail inmates who had been sentenced for the change of murder by session court were included in the study.
- t) The other criteria were of age. Jail inmates of 18 years or above were included into the study. There was no bar on any social class to enter the study sample.
- ui) Only the male prison inmates were included into the study.

# **Exclusive criteria**

- All tape, fraud he jail inmates below the age of eighteen were excluded from the study.
- the jail inmates charged with other crimes for example, theft, rape, and fraud were excluded from the study.
- III) The prisoners who did not give consent or could not understand the instrument question due to hearing loss, or language problem were also excluded from the study.

# **Consent of the prisoners:**

Consent was taken from the prisoners before conducting the interview.

#### RESULTS

Five hundred jail inmates were interviewed in the study. Out of those total 500 prisoners 176 (35.2%) prisoners were GHQ-12 positive cases while 324 (64.80%) prisoners were GHQ-12 negative (Table-I). The difference was statistically highly significant (P<0.00001).

Out of total 500 prisoners 77 (15.4%) were given diagnosis according to DSM-111-R. Among 397 open prisoners, 56 (14.11%) prisoners were give psychiatric diagnosis while out of 103 closed prisoners 21

S.No.	Type of imprisonment	No.of prisoners interviewed	GHQ-12 Positive cases	GHQ-12 negative cases					
1	Open	397(79.4%)	83(20.9%)	314(79.1%)					
2	Closed	103(20.6%)	93(90.3%)	10(9.7)					
	Total	500	176(35.2%)	324(64.80%)					
	Table-I. GHQ-12 Caseness								

(20.39%) prisoners were given psychiatric diagnosis. This comparative psychiatric diagnosis is given in table-II. Majority of the prisoners were suffering from major depressive episode and rest of them suffered from dysthymia. Both the disorders mentioned above belonged to depressive illness. They formed the total diagnosable psychiatric morbidity. So far convenience reference of psychiatric diagnosis is given in results and discussion, meaning by that the depressive illness belonging to those two categories.

The difference is not statistically significant (P=0.12).

S.No.	Type of imprisonment	Prisoners interviewed		Psychiatric diagnosis		Major depressive episode		Dysthymia	
		No	%	No	%	No	%	No	%
1	Open	397	79.4	56	14.11	42	10.6	14	3.5
2	Closed	103	20.6	21	20.39	17	16.5	4	3.9
	Total	500		77	15.4	59	11.6	18	3.6

Table-II. Comparative psychiatric morbidity of jail inmates in open and closed prison

S.No	Age		niatric nosis	Depre	ajor essive sode	Dystl	nymia		hiatric nosis	Depre	ajor essive sode	Dystł	nymia
		No	%	No	%	No	%	No	%	No	%	No	%
1	18-27	6	6.7	5	5.55	1	1.11	1	4.0	1	4.0	0	0.0
2	28-37	6	4.1	6	4.1	0	0.0	10	23.3	7	16.3	3	7.0
3	38-47	5	8.8	5	8.8	0	0.0	5	25.0	4	20.0	1	5.0
4	48-57	10	30.3	7	21.2	3	9.1	2	22.2	2	22.2	0	0.0
5	58-67	19	39.6	12	25.0	7	14.6	2	40.0	2	40.0	0	0.0
6	68-77	7	38.9	5	27.8	2	11.1	1	100.0	1	100.0	0	0.0
7	78-87	2	66.7	1	33.3	1	33.3	0	0.0	0	0.0	0	0.0
8	88-97	1	100.0	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
	Total	56	14.1	42	10.58	14	3.53	21	20.39	17	16.53	4	3.88
	т	able-III(		iso comr	arativo r	evehiat	ic morbi	dity in or	oon voreu		d prisone	re	

able-III(A). Agewise comparative psychiatric morbidity in open ver

S. No	Guilt about crime	-	chiatric gnosis	Dep	ajor ressive isode	Dys	thymia		chiatric gnosis	Dep	lajor pressive pisode	Dys	thymia	-	chiatric gnosis
		No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	Below 48	17	5.78	16	5.44	1	0.34	16	18.18	12	13.64	4	4.54	33	8.63
2	48% above	39	37.86	26	25.24	13	12.62	5	33.33	5	33.33	0	0.0	44	37.28
	Total	56	14.11	42	10.58	14	3.53	21	20.39	17	16.51	4	3.88	77	15.4
		Tab	le-IIIb. A	gewise	compara	tive p	sychiatri	c mor	bidity in	open v	versus clo	osed p	orisoners	3	

Maj. Depres	sive Episode	Dysthymia			
No.	%	No.	%		
28	7.33	5	1.3		
31	26.27	13	11.01		
59 11.8		18	3.6		

Table-III(A) shows age wise psychiatric morbidity among open and closed prisoners. Here age is distributed in 8 columns of 10 years difference. This table gives more detailed, psychiatric morbidity.

In table-IIIb, the same table has been shortened and only divided into 2 age groups. In first group the prisoners were of 18-47 years of age and in the second group prisoners were of 48-97 years of age. In first group 382 (76.4%) of prisoners were interviewed and out of these 103 (26.96%) were GHQ-12 positive.

In the second group 118 (23.6%) prisoners were interviewed out of these 66(55.93%) were GHQ-12 positive. The difference was statistically highly significant (p<0.0001).

#### **Psychiatric diagnosis**

Out of first group in which 382 prisoners were interviewed 33 (8.63%) had a psychiatric diagnosis while from second group out of 118 prisoners 44 (37.28%) had psychiatric diagnosis. The difference was statistically highly significantly (p<0.0001).

S.NO	Marital status	Prisoners Interviewed Open closed	GHQ-12 positive cases Open closed	Psychiatric diagnosis Open closed					
1	Unmarried	171 44 (43.1%) (42.7%)	15 40 (8.8%) (90.9%)	9 9 (5.3%) (20.45%)					
2	Married	226 59 (56.9%) (57.3%)	68 53 (30.1%) (89.8%)	47 12 (20.8%) (20.3%)					
	Total	397 103 (79.4%) (20.6%)	83 93 (20.9%) (90.29%)	56 21 (14.11%) (20.39%)					
	Table-IV. Marital status and psychiatric morbidity among jail inmates (n = 500)								

Μ	aj. Depress Open	sive episode closed	Dystł Open	nymia closed
	8	8	1	1
	(4.7%)	(18.2%)	(0.6%)	(2.3%)
	34	9	13	3
	(15.0%)	(15.3%)	(5.8%)	(5.1%)
42		17	14	4
	(10.58%)	(16.5%)	(3.53%)	(3.88%)

S.NO	Employment Status before imprisonment	Prisoners i	nterviewed	GHQ-12 po	sitive cases	Psychiatric Diagnosis				
		No	%	No	%	No	%			
1	Unemployment	43	8.6	13	30.2	1	2.3			
2	Employment	34	6.8	16	47.1	8	23.5			
3	Self employment	423	84.6	146	34.5	68	16.1			
	Table IV Employment status and insychiatric morbidity among joil inmates $(n = 500)$									

Table-IV. Employment status and psychiatric morbidity among jail inmates (n= 500)

	pressive sode	Dystł	nymia
No	%	No	%
1	2.3	0	0.0
6	17.6	2	5.9
52	12.3	16	3.8

#### **GHQ-12 caseness**

Out of 215 (43%) unmarried prisoners, 55 (25.58%) were GHQ-12 positive cases while out of 285 (57%) married prisoners 121 (42.45%) were GHQ-12 positive. The difference was statistically highly significant (p<0.0001)(Table-IV).

#### **Psychiatric diagnosis**

Out of 215 unmarried prisoners, 18 (8.37%) had a psychiatric diagnosis while out of 285 married prisoners

59 (20.70%) had psychiatric diagnosis. The difference was statistically highly significant (p=0.00016).

When psychiatric diagnosis was considered. Out of 77 prisoners who were diagnosed as having psychiatric illness, the prisoners who were employed before imprisonment had 23.5% psychiatric morbidity than unemployed or self employed who had 2.3% and 16.1% respectively (Table-V). The difference was statistically significant (p=0.02).

S.NO	Employment Status before imprisonment	Prisoners	interviewed	GHQ-12 po	sitive cases	Psychiatric Diagnosis		
		No	%	No	%	No	%	
1	Unemployment	43	8.6	13	30.2	1	2.3	
2	Employment	34	6.8	16	47.1	8	23.5	
3	Self-employment	423 84.6		146	34.5	68	16.1	

Table-V. Employment status and psychiatric morbidity among jail inmates (n= 500)

Maj. Depres	sive episode	Dysthymia			
No	%	No	%		
1	2.3	0	0.0		
6	17.6	2	5.9		
52	52 12.3		3.8		

Table-VI. Clearly the difference of psychiatric morbidity among prisoners who confessed about the crime and reported that they were responsible for crime and those who did not confess out of 500 prisoners.

306(61.2%) did not confess about the crime and 194 (38.8%) confessed about the crime and hence they were pleading guilty.

# **GHQ-12 Caseness**

Out of 306 prisoners who were not pleading guilt, 132 (43.1%) reported GHQ-12 caseness and out of 194 prisoners who were pleading guilty 44(22.7%) were GHQ-12 positive cases. The difference was statistically highly Significant (p=0.00001).

S.NO	Confession about crime	Prisoners i	nterviewed	GHQ-12 po	sitive cases	Psychiatric diagnosis		
		No	%	No	%	No	%	
1	Pleading guilty	194	38.8	44	22.7	15	7.7	
2	Not pleading guilty	306	61.2	132	43.1	62	20.3	
	Total	500		176	35.2	77	15.4	
	Table-VI.	Confession Abo	out Crime And	Psychiatric Mor	bidity Amona J	ail Inmates		

#### **Psychiatric Diagnosis**

Concerning psychiatric diagnosis out of 306 prisoner who were not pleading guilty 62 (20.3%) had psychiatric diagnosis. While out of 194 prisoners who were pleading guilty 15 (7.7%) had psychiatric diagnosis. The difference was statistically highly significant (p=0.0002).

Suicidal tendency			
No	%		
8	2.6		
26	8.5		
34	6.8		

Table-VII shows psychiatric morbidity according to reason to crime. Among the prisoners who reported as uninvolved with crime and were being punished for nothing had more psychiatric morbidity. The morbidity was less when murder was committed due to revenge. The least psychiatric morbidity was present among prisoners where murder was accidental.

When GHQ-12 caseness was considered the difference was statistically significant (p=0.001).

The difference was even more significant when psychiatric diagnosis was considered. The difference was statistically highly significant (p=0.00001).

S.NO.	Reason of Crime	Psychiatric diagnosis		Major depressive episode		Dysthymia	
		Νο	%	No	%	No	%
1	Revenge	0	0.0	0	0.0	0	0.0
2	Planned	2	6.9	2	6.9	0	0.0
3	Provoked	12	10.2	9	7.9	3	2.5
4	Defence	1	3.2	1	3.2	0	0.0
5	Accidental	0	0.0	0	0.0	0	0.0
6	Uninvolved	62	20.2	47	15.31	15	4.88
	Total	77	15.4	59	11.8	18	3.6
Table-VII. Reason of crime and psychictric morbidity among jail inmates							

456

Table-VIII shows the comparative suicidal tendency among open and closed prisoners.

Out of 397 open prisoners 56(14.11%) were diagnosed as having psychiatric illness and 20 (5%) had suicidal tendency while among 103 closed prisoners 21(20.39%) had suicidal tendency and the difference was psychiatric illness and out of these 14(13.6%) had statistically highly significant (p=0.002).

S.NO	Type of imprisonment	Prisoners interviewed		Suicidal Tendency	
		No	%	No	%
1	Open	397	79.4	20	5.0
2	Closed	103	20.6	14	13.6
	Total	500		34	6.8
Table-VIII. Suicidal Tendency Among Jail Inmates (Open Versus Closed Prisoners)					

#### DISCUSSIONS

There is hardly any doubt that prisoners contain a considerable number of psychiatrically disturbed people. It has also been reported that psychiatric disorders are particularly frequent among offenders sentenced to life imprisonment.

The published studied to date support this view but there are a lot of variations among these studies. The studies vary in the selection of prisoners, types of jail, use of instruments. The socio-cultural background true when round of prisoners is also variable. This is more true when we compare our socio-cultural background with that of other countries. Death sentenced, one of important psychosocial stressor among prisoners has been banned in large number of countries.

Concerning the GHQ-12 caseness, the result showed that a large number of prisoners were GHQ-12 positive. Among two broad groups (open and closed) in the present study, the results were variable and the difference was statistically highly significant (p,0.00001). This clearly shows that there is significant correlation between death sentence an important psychosocial stressor among prisoners and GHQ-12 casseness.

study among prisoners used GHQ-12 besides other instruments and they concluded that it was a very useful screening instrument.<sup>4</sup>

The study among sentenced prisoners found out that about 20% of prisoners needed some psychiatric contact.<sup>3</sup> In my study among open prisoners 20.9% of prisoners were GHQ-12 positive and the results are similar to the study of Gun and it confirmed the findings of Gunn.

In the study 64% of jail inmates had some health problem10. The study found out that 56% of the prisoners were psychiatric cases6. The study concluded that about 66% of prisoner had some psychiatric diagnosis the overall results are similar to the above mentioned studies and the difference is not statistically significant (p.0.05).<sup>4</sup>

The studied psychiatric morbidity among prisoners who were sentenced to life imprisonment. He found that 12% of prisoners were suffering from depressive illness. In my study among open prisoners 14.11% of prisoners were suffering from depressive illness. The result of both studies are near to each other and difference is not statistically significant (p,0.05).<sup>4</sup>

The studied psychiatric morbidity among sentenced prisoners. They found that 12% of prisoners were suffering from mood disorder. Majority of them had major depression. The results of my study confirmed the findings.<sup>4</sup>

In both the above mentioned studies type of prisoners selected for the study were similar in relation to type of imprisonment, the life imprisonment and they were all sentenced prisoners.

Considering the age of the jail inmates it was observed that prisoners of higher age (48 years or above) had more psychiatric morbidity. This was especially true about open prisoners. The difference between the two groups was statistically highly significant (p,0.0001).

The finding of my study are generally confirming the observation that depressive disorders are common in later life. The point prevalence for depression of clinical severity is about 10% for those aged over 65 with 2-3% being 2. The study of prisoners observed that younger age prisoners had more psychiatric morbidity. The results of my study are not in keeping with this study. This contrast of results can be explained by an important difference between the two studies.<sup>7</sup>

The studies total psychiatric morbidity that include many psychiatric disorders that are common in younger age group like schizophrenia, conversion disorders, drug dependence etc while my study concentrated only on minor psychiatric morbidity generally depressive disorders.<sup>7</sup>

Considering the confession about crime majority of

the prisoners did not confess about crime ad hence they were not pleading guilty. Out of 306 prisoners who were not pleading guilty 43.1% were GHQ-12 positive cases and 203% were diagnosed as suffering from psychiatric illness. Out of 194 prisoners who were pleading guilty 22.7% were GHQ-12 positive cases and 7.7% were diagnosed as having psychiatric illness. The difference was statistically highly significant (p,0.0001.).

This difference can be explained by the role of learned helplessness in the causation of depression. Among the prisoners who were not pleading guilty reported that they were caught and convicted without any reason and they had no control over this injustice. They were facing hardships of prison for the crime, that they had not committed. These feeling of helplessness might increase hopelessness and sadness that could have contributed in the etiology of depression. The people who were pleading guilty had many reasons for the crime e.g. Revenge, accidents or other reasons. Many of these prisoners had no guilt because they had rationalized it and hence it might be the one of reason for decreased psychiatric morbidity among these prisoners.

Considering the reason of crime among the prisoners who were pleading guilty, it has been observed that prisoners who had committed murder due to revenge and their crime was planned had significantly less morbidity than the other prisoners. The least psychiatric morbidity was reported among the prisoners where the murder was accidental. The prisoners who reported that crime was provoked by the offended person or they had committed the crime in defending themselves because otherwise they would have themselves killed, had higher psychiatric morbidity and the difference were statistically significant (p,0.05).

The difference may be explained by the reason that presence of very little guilt among prisoners who had committed crime in revenge and hence having less role in causation of depression because they had rationalized it. The prisoners who had killed the victim accidently also had less guilt. The guilt was more among prisoners where the victim had provoked the crime and this might have played role in causing the prisoner more sad, and anxious hence leading to more psychiatric morbidity.

Considering the suicide in prison many studies have shown increased prevalence of suicide and deliberate self-harm among jail inmates. In the study done by a researcher life time suicide is 7 times than general population and in the study done, it was 1.6-8.2 times than the general population1. The rate of suicide was very high among parents who killed their children they found that 79% of those were psychically ill and later committed suicide. The comparison between suicide rates among different groups of population is very difficult due to the problems in detection of cases. This is more true about prisoners where detection is made more difficult especially in violent offenders. In violent offender the risk of suicide is difficult to detect by sadness of mood. In the study done there was found a high correlation between non-violent behavior and sadness of mood while no such correlation was found among violent offenders.<sup>1</sup>

In my study 5% of open prisoners had suicidal tendency (suicidal ideation, intentions or plans) while 13.6% of closed prisoners had suicidal tendency. The difference was statistically highly significant (p,0.05). This high prevalence of suicidal tendency can be explained by more difficult and harash environmental conditions in the jail, having more family problem and guilt about murder leading to more severity of illness and hence suicidal behavior.

Considering the presence of physical illness and its association with psychiatric illness it was observed that physical illness had significant association with psychiatric morbidity. Majority of prisoners had no concurrent physical illness. Out of 83 prisoners who had physical illness 54.21% were GHQ-12 positive cases and 26.50% were diagnosed as having psychiatric illness. Out of 417 prisoners who had no physical illness 31.41% were GHQ-12 positive cases and 13.19% had psychiatric illness. The difference between the two groups was statistically highly significant (p,0.005).

# CONCLUSIONS

There is hardly any doubt that prisons contain a considerable number of psychiatrically disturbed people. The published studies to date support this view and increased prevalence of psychiatric disorders is reported quiet frequently in literature.

In this study the prevalence of minor psychiatric morbidity was assessed. Five hundred randomly selected prisoners were interviewed. Out of them 397 prisoners were selected from open prison and 103 prisoners from closed prison. In the first stage GHQ-12 was administered to detect the cases. In the second stage PAS was administered to all high score (2 or

above) and 10% of low scores. PAS detected minor psychiatric morbidity like depression, anxiety, panic disorder and phobic disorders. Diagnosis was based on DSM-111-R criteria. Their demographic characteristics were also obtained and comparison was made among open and closed prisoners. They were similar in age, sex, education, socioeconomic and marital status, place of residence and employment status before coming to jail. The difference in these respects was statistically insignificant. Majority of prisoners were from rural area and belonging to lower socioeconomic status. Closed prisoners scored higher on GHQ-12 and their percentage was also guiet high. Prisoners of higher age had more psychiatric morbidity. Morbidity was also more common among married prisoners and who were employed before imprisonment. The prisoners who reported not pleading guilty had higher psychiatric morbidity. Closed prisoners reported more suicide tendency. The prisoners who were given death and had concurrent physical illness also suffered from psychiatric illness more often as compared those who had no physical illness. The difference were statistically significant. Reason of the difference and their implications are discussed. Future prospects of research on the topic are also discussed. Copyright© 22 Nov, 2014.

#### REFERENCES

 Barry M Gudjonsson G, Gunn J, et al. The mentally disordered offenders in non-medical settings. In: Gunn J,Taylor PJ (eds).Forensic Psychiatry, Clinical, Legal and Ethical Issues. Oxford:Butterworth-Heinemann, 2009:732-93.

- Gelder M, Gath D, Mayou R, Cowen P. Oxford Textbook of psychiatry. 3rd Ed. New York: Oxford University Press, 2010: 134-59, 749-80.
- Gunn J,Maden A, Swinton M. Treatment needs of prisoners with psychiatric disorders. BMJ 2007;303 (6798):338-41.
- Herman H, McGarry P, Mills J, Singh B. Hidden severe psychiatric morbidity in sentenced prisoners: An Australian study. Am J Psychiatric 2009 ; 148(2):236-39.
- Hurley W, Dunne MP. Psychological distress and psychiatric morbidity in women prisoners. Aust NZJ psychiatr 2007; 25 (4): 461-70.
- Joukamaa M. Psychiatric morbidity among Finish prisoners with special reference to sociodemographic factors: Results of the health survey of Finnish prisoners (Watta Project). Forensic Sci Int 2008; 73(2):85-91.
- Koeing HG, Johnson S, Bellard J Denker M, Fenlon R. Depression and anxiety disorder among older male inmates at a federal correlational facility. Psychiatr Serv 2004; 46(4):399-401.
- 8. Metzner JL. Applied criminology. Current opinion in psychiatry 2008; 856-60.
- Pullen I. psychiatry in general practice. In: Kendell RE, Zealley AK (eds). Companion to psychiatric studies. 5th Ed. Edinburgh: Churchill Livingstone, 2006: 761-78.
- Singer MI, Bussey J, Song LY, Lunghofer L. Psychosocial issues of women serving time in jail. Social Work 2004; 40(1): 103-13

# AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Dr. Muhammad Arshad	Data collection	them-
2	Muhammad Aslam Lodhi	Statistical procedure rephrasing	Adr