

The Prevalence of Mental Disorders among Serving Soldier Requiring Admission.

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ABSTRACT

Introduction: Numerous studies have been done to study the psychiatric conditions in army personnel but none have been done in Nepalese army personnel. The purpose of the present study was to determine the prevalence of common mental disorders among Nepalese Army Personnel who were admitted in psychiatric ward. **Methods:** Retrospectively 186 case records of Nepalese Army Personnel, who received treatment at the inpatient psychiatric ward over a period of one year (15th May 2010 to 15th May 2011), were included in this study. Descriptive analysis of their demographic data and types of psychiatric disorders was done using SPSS v16. **Results:** Among the 186 patients who were admitted during the study period, 184 (98.92%) were male. The most common age range was 21-30 years (70.43%). The prevalence of the first ten rank of mental disorders among Nepalese Army Personnel were Major Depression (25.27%), Alcohol dependence (22.58%), Schizophrenia (14.67%), Bipolar disorder (8.6%), Anxiety disorder (6.52%), Substance induced psychotic disorder (4.35%), Schizoaffective disorder (3.26%), Deliberate self harm (2.72%), Malingering (2.72%) and Poly substance dependence (2.72%). **Conclusions:** The most common prevalence of mental disorders among inpatient of Nepalese Army Personnel in psychiatric department in the year 2010-11 were Major depressive disorder, Alcohol dependence and Schizophrenia.

Keywords: mental disorders, prevalence, army Personnel

INTRODUCTION

Many investigators have examined the mental health consequences of exposure to war trauma and found substantial postwar psychiatric difficulties among veterans¹⁻⁴. Various studies on mental disorders in soldiers have been done. For example, a study on the relationship between mental disorders and treatment in US veteran's hospital during 1993-1995, revealed that at least one mental disorder was found in the population studies, of which depression, post-traumatic stress disorder, and alcohol-related disorders were found at the rates of 31%, 20% and 20% respectively⁵⁻⁷. Another study done in inpatients found alcohol-related disorders as the most common followed by adjustment and personality disorders⁸⁻¹⁰.

In Nepal, the prevalence of common mental disorders had reported only in civilian's population^{11,12}. In recent past the incidence of inpatient as well as outpatient psychiatric cases have exponentially increases. A study on common mental disorders in Nepalese army personnel treated as inpatient has never been done; therefore, this study intended to analyze the prevalence of common mental disorders in

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 serving soldiers. Results of the study may be used as basis data in planning for prevention and treatment for Nepalese Army Personnel.

METHODS

The data was collected from case records of the serving soldiers who received treatment as inpatient at psychiatric ward of the Birendra Hospital from 15th May 2010 to 15th May 2011. All serving soldiers who were admitted in psychiatric inpatient department with a completed psychiatric diagnosis made by psychiatrist, based on the 4th edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)¹³ and 10th revision of International Statistical Classification of Diseases and Related Health Problem (ICD-10)¹⁴ were included in this study. Data analyzed were psychiatric diagnosis and demographic information like gender, age, marital status and ranking. The uncompleted records for psychiatric diagnosis were excluded. The data are expressed as frequency and percentage. The prevalence of mental disorders among Nepalese Army Personnel was calculated by gender, rank, age and marital status.

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RESULTS

Among 186 Nepalese Army Personnel who were treated at psychiatric ward, 184 were males (98.92%) and only two were females (1.08%). Majority of patients were between the age group of 21-30 years and 135 (72.58%) were married. Demographics data were shown in Table 1. The present study revealed that the most common mental disorders was major depressive disorder (25.27%) followed by alcohol dependence (22.58 %), schizophrenia (14.67%), bipolar disorder (8.6 %) and anxiety disorder (6.52%).

Table 1. Demographics data in 186 subjects

Characteristics of the study population		n	%
Gender	Male	184	98.92
	Female	2	1.08
Age	< 20 yrs	2	1.08
	21-30 yrs	131	70.43
	31-40 yrs	40	21.50
	41-50 yrs	12	6.46
	51-60 yrs	1	0.53
Rank	Officers	3	1.61
	Warrant Officer	9	4.84
	Private-Sergeant	154	82.80
	Followers	20	10.75
Marital status	Unmarried	42	22.58
	Married	135	72.58
	Separated	9	4.84

The results show that the common three prevalent mental disorders in male were alcohol dependence, schizophrenia and bipolar disorder. For female it was depressive and bipolar disorders (Table 2). Most of psychiatric inpatients were Private and Non commission officer with major depression (25 %) followed by alcohol dependence and schizophrenia as commonest mental disorder in this group of patient. Other mental disorders determined by rank were shown in (Table 3). The most common mental disorders, major depression, alcohol dependence and schizophrenia were mostly found in age group between 21-30 years (Table 4). Most of inpatients were married (72.58 %). Mental disorders schizophrenia was commonest in unmarried patients in contrast to major depressive disorder in married (Table 5).

DISCUSSION

The present study revealed that the prevalence of common mental disorders among Nepalese Army Personnel who attended the inpatient psychiatric ward at Birendra Hospital in 2010-11 was similar to the study done in Nepal Medical College and Teaching Hospital in Nepal¹². The most common prevalent mental disorder found in another study was major depressive disorder at the rate of 25.27%, which was similar to our study¹⁵. The study showed that

depression rate was found more in male than female and age group between 21-30 years¹⁰. The possible cause for the difference in our study may be because of case selection we enrolled only the serving sholdier.

Table 2. Distribution of mental disorders by Gender

Diagnosis	n	%
Major dep dis	47	25
Alcohol dependence	42	22.28
Schizophrenia	27	14.67
Bipolar disorder	15	8.15
Anxiety disorder	12	6.52
Substance Induced psychotic Disorder	8	4.35
Schizoaffective disorder	6	3.26
Deliberate self harm	5	2.72
Malingering	5	2.72
Poly substance dependence	5	2.72
Adjustment disorder	4	2.17
Organic brain syndrome	4	2.17
Dysthymia	3	1.63
Personality disorder	2	1.09
Delusional disorder	1	0.55
Total	186	100

Similar to our study, the second most prevalent mental disorder was alcohol dependence in various other studies¹⁶⁻¹⁷. Most of the alcohol dependent patients were male. This may be because of our custom where females are mostly restricted to consume alcohol. In a study¹⁸, prevalence of alcoholism in general population in Nepal was 4.5 % which is significantly lower than our study. This signifies that alcohol consuming is a major problem in the army personnel. These findings may provide an opportunity for a development of prevention strategies.

The third most prevalence mental disorder was schizophrenia, mostly seen in privates-sergeants, aged between 21-30 years in unmarried patients. This can be explained from the fact that most privates were around 18-20 years old when they undergo recruitment training and in compliance that schizophrenia can be mostly found in men at the age of early 20 years¹⁹⁻²¹. This emphasizes the need of a meticulous selection process and a regular follow up during the training process. Bipolar disorder was found in age between 21-30 years in privates-sergeants.

However, the present study has some limitations. Firstly, this was a retrospective descriptive study. A larger comparative study would provide more comprehensive results. Secondly, the sample size was small as this study focused only on inpatient army personnel. However this forms baseline information for future studies.

Table 5. Distribution of mental disorders according to Marital status.

Diagnosis	Marital status		
	Single	Married	Separated
Major depressive disorder	6	41	
Alcohol dependence	3	35	3
Schizophrenia	14	11	2
Bipolar disorder	3	12	1
Anxiety disorder	5	7	
Substance Induced psychotic Disorder	2	6	
Schizoaffective disorder	1	4	1
Deliberate self harm	2	3	
Malingering	1	4	
Poly substance dependence	3	2	
Adjustment disorder	1	1	2
Organic brain disorder		4	
Dysthymia		3	
Personality disorder	1	1	
Delusional disorder		1	
Total	42	135	9

CONCLUSIONS

From the present study, it was found that the three most prevalent mental disorders among inpatient Nepalese Army Personnel were major depressive disorder, alcohol dependence and schizophrenia.

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Table 3. Distribution of mental disorders according to Rank

Diagnosis	Rank			
	Officers	W/ Off	Pri-Segt	Followers
Major depressive disorder		1	35	11
Alcohol dependence	1	3	33	4
Schizophrenia		2	23	2
Bipolar disorder	1	2	12	1
Anxiety disorder			11	1
Substance Induced psychotic Disorder			7	1
Schizoaffective disorder			6	
Deliberate self harm			5	
Malingering		1	4	
Poly substance dependence	1		4	
Adjustment disorder			4	
Organic brain disorder			4	
Dysthymia			3	
Personality disorder			2	
Delusional disorder			1	
Total	3	9	154	20

Table 4. Distribution of mental disorders according to Age.

Diagnosis	Age				
	<20 n (%)	21-30 n (%)	31-40 n (%)	41-50 n (%)	51-60 n (%)
Major depressive disorder	1(50)	32(24.43)	12(30)	2(16.67)	
Alcohol dependence		24(18.32)	10(25)	6(50)	1(100)
Schizophrenia	1(50)	21(16.03)	5(12.5)		
Bipolar disorder		12(9.16)	3(7.5)	1(8.33)	
Anxiety disorder		8(6.11)	2(5)	2(16.67)	
Substance Induced psychotic Disorder		4(3.05)	3(7.5)	1(8.33)	
Schizoaffective disorder		5(3.82)	1(2.5)		
Deliberate self harm		4(3.05)	1(2.5)		
Malingering		5(3.82)			
Poly substance dependence		4(3.05)	1(2.5)		
Adjustment disorder		4(3.05)			
Organic brain disorder		2(1.53)	2(5)		
Dysthymia		3(2.29)			
Personality disorder		2(1.53)			
Delusional disorder		1(0.76)			
Total	2(100)	131(100)	40(100)	12(100)	1(100)