

An epidemiological study of psychiatric disorders in Kashmir

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ABSTRACT

Introduction: Mental disorders are highly prevalent and affect people across all regions of the world. The State of Jammu and Kashmir has been witness to a conflict for about three decades. Little is known about the extent of mental disorders in Kashmir. There was a dire need to estimate the prevalence of mental disorders among the rural population of Kashmir. The study was undertaken to estimate the point prevalence of specific mental disorders in rural population of Kashmir, sociodemographic correlates of mental disorders and to assess the service utilization in individuals with mental disorders. **Materials and Methods:** Community-based survey carried out in rural districts of Kashmir using a mixed sampling technique. The survey was conducted in six blocks of two districts (Pulwama and Baramulla) of Kashmir. Mini-International Neuropsychiatric Interview (MINI) for psychiatric morbidity was used. Appropriate statistical methods were applied. **Results:** In total, 11.3% of adult population suffers from mental illness in the valley. As compared to males (8.4%), females had a higher prevalence (12.9%). Depressive disorders (8.4%) were the most common psychiatric disorders, followed by anxiety disorders (5.1%). Only 12.6% of patients suffering from mental disorders had sought treatment for their illnesses. **Conclusion:** The findings of this study have cleared many doubts and indicated the prevalence of 10 common mental health disorders in the general population as well as among different socioeconomic groups in Kashmir. This study has indicated low levels of treatment sought by people with mental illness.

Keywords: Conflict, Kashmir, mental disorders

Introduction

Almost a quarter of the world's population will suffer from a mental or neurological disorder in their lifetime, according to WHO statistics. In 2001, it was projected that 450 million people across the globe were affected. Global morbidity and disability were significantly impacted by mental health issues.^[1] The global burden of mental disorders is estimated to be 7.1%

of all DALYs,^[2] after adjusting for the consequences of suicide, self-harm, and personality disorders. In 2013, psychiatric disorders topped the list of all diseases in terms of YLDs (years of life lost).^[3] Mental health disorders in India are a poorly studied area. Based on a review of fifteen studies, Ganguli determined that India has a 7.3% prevalence rate for all forms of mental illness. Anxiety neurosis affected 1.65% of the population, while affective disorders (which include sadness, psychosis, and neurosis) affected 3.4% of the population.^[4] The 2015–2016 National Mental Health Survey (NMHS) in India included data from 12 states and 6 regions, and it found a weighted lifetime prevalence of 13.7% for any mental condition, with a current prevalence of 10.6%.^[5]

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Kashmir has experienced numerous waves of bloodshed and unrest, particularly in the last three decades. Still commonplaces in Kashmir are cross-fires, raids, torture, sexual assaults, forced labor, arrests, maltreatment, disappearances, and killings.^[6,7] Devastating losses of life, property, infrastructure, livelihoods, shelters, land, trees, animals, and agriculture have been inflicted by earthquakes and floods in Kashmir, affecting tens of thousands of people. The mental health of the Kashmiri people is a serious concern in light of the current adverse sociopolitical climate.^[7] A similar pattern of warning signs for poor mental health was discovered in Kashmir by Médecins Sans Frontières (MSF) researchers in 2005. More than a third of respondents^[8] said they were unsatisfied with their lives to the point where they had considered suicide as a solution to their difficulties, illustrating the disturbing rise in feelings of despair, melancholy, and hopelessness. Over a third (33.3%) of 510 people in two Kashmiri districts (Kupwara and Budgam) had symptoms of psychological discomfort in a 2005 study by de Jong *et al.* Women experienced these problems at a considerably higher incidence than men. While this research did not attempt to diagnose any specific mental diseases, it did highlight certain concerning trends in the state of people's mental health. Significant psychological distress was predicted by both low socioeconomic status and a negative self-assessment of health.^[9] The primary mental health treatment facilities in Kashmir have not altered much in the last two and a half decades, despite a major increase in the prevalence of mental disease in the region. As a matter of fact, mental health services are rarely offered in primary care settings. In both the secondary and tertiary sectors of the public health system, psychiatrists are in low supply. Community-based mental health interventions are also severely lacking. The Union Territory level Government Psychiatric Disorders Hospital in Srinagar has been remodeled into an Institute of Mental Health and Neurosciences in recent years as part of a push to improve the delivery of mental health services (IMHANS).

Lack of knowledge, severe stigma, and inadequate socioeconomic and physical access all contribute to the underutilization of available resources for mental health conditions. It is crucial to gain a better understanding of the prevalence of mental illness in the society. So far, just one community prevalence research has been performed, and its scope has been limited to posttraumatic stress disorder (PTSD). MSF and Jong *et al.*, 2005 have solely investigated emotional distress, not the categorization of symptoms across mental disorders.^[8,9] Most research on mental health in Kashmir has been conducted in hospitals or with certain individuals at risk, so we do not know how prevalent the problem really is. Untreated mental health morbidity rates are also unclear.

The current study aimed to explore the prevalence of mental health disorders in Kashmir and the availability of mental health services in the region. This study looked into the effects of war on people's mental health and the social and economic elements that contribute to it. The research was conducted to add to existing knowledge and guide policy decisions about the mental health of the Kashmiri people.

Materials and Methods

Study area

The study used a cross-sectional design with multiple sampling strategies to collect its results. There are three artificially created regions in Kashmir: north Kashmir, south Kashmir, and central Kashmir. The decision to include one district from each zone was made to ensure a geographically representative sample and to appropriately depict the contrasting political and socioeconomic climates that prevail in the valley's southern and northern sections. Recent research^[10] shows that the recent violence has had an especially significant impact on the mental health of those living in the southern district of Pulwama and the northern district of Baramulla. For the sake of manageability, variation in geography, and proximity to district offices without being too near, the study was conducted in three blocks across both districts. Baramulla had the blocks of Singhpora, Pattan, and Baramulla chosen, whereas Pulwama obtained the blocks of Shadimarg, Pampore, and Tral. The municipalities included in each division were chosen at random [refer to Figure 1].

Sampling methods and representative sample

Using a sampling interval strategy, we randomly selected households from within each settlement. There were interviews for everyone who satisfied the criteria for consideration. Those who qualified were over the age of 18, in good physical health, not expecting, and did not have significant disabilities (such as blindness, polio, amputated limbs, etc.) or congenital cardiac defects, rheumatic heart disease, TB, cancer, etc.,. Prescreening and in-person interviews were conducted with respondents who met these criteria and were present in their respective homes throughout the interview. In order to make any conclusions on the prevalence of mental health illnesses in Kashmir, researchers required to interview 3914 people, but they spoke with 4000. This sample was statistically significant to estimate the prevalence of mental illness in Kashmir and was calculated within 0.3% of its true value with 95% confidence level. A design effect of 1.5 and a nonresponse rate of 10% were considered for the study. Since this is the first study of its kind in Kashmir and there is no existing cross-sectional data

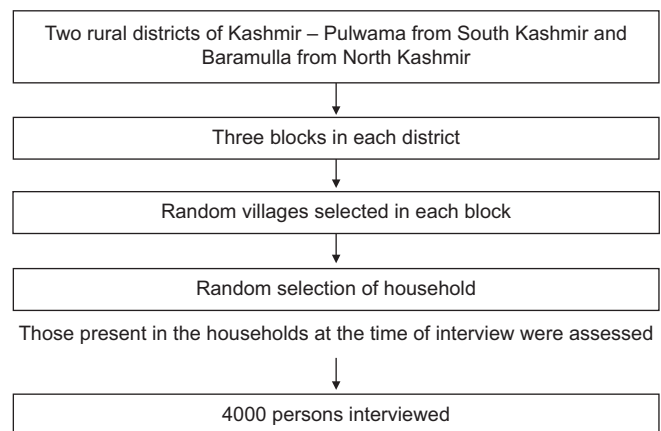


Figure 1: Methodology. (Flow chart)

available on the prevalence of these common mental health disorders, it was crucial to take a scientific sample under this study to estimate the prevalence of these disorders for the purposes of academic research, clinical practice, and policy making. A similar number of samples were collected in both Baramulla and Pulwama.

Nature of the study

The study was quantitative in nature. The interview process included two parts – one collecting data related to sociodemographic and economic conditions and second was a screening process to determine whether the person was suffering from any mental health disorder. Only those with a mental illness diagnosis were questioned about available treatments. Following an initial screening to establish the existence or absence of a mental health issue, individuals were asked the following set of questions. Before beginning the interviews, participants were assured of their entire confidentiality. Written informed permission was acquired from all participants. The research study was approved by the Institutional Ethics Committee.

Tools of data collection

The MINI Screen was used to identify any responders with diagnosable mental health disorders. Treatment was given to those who required it. For use in both clinical and epidemiological contexts, the MINI is a standardized diagnostic examination for identifying mental health problems.^[11] It is consistent with both the International Classification of Diseases, Tenth Revision (ICD-10), and the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV).

Data analysis

The collected data, which were quantitative in nature, were analyzed using SPSS version 20 (Armonk, NY, USA: IBM Corp.). To analyze the information, we made use of cross-tabulations, percentages, and frequency distributions. The data were analyzed using Pearson’s Chi-square test. When necessary, “data not available” notations were appended to the appropriate tables. The cut off for statistical significance (*P* value) was set at 0.05.

Time frame

The field study was conducted from September to November 2019, and thereafter the processes of data entry, cleaning and analysis were done during November and December, 2019.

Results

Sociodemographic profile of the study population

Around 4000 persons answered the survey. They were all grownups who had spent their entire lives in the Kashmir area. There were a total of 2579 people who took part, with 64.5% being female. Almost 57% of the population is under the age of 40. Five-and-a-half percent of respondents were either completely uneducated or illiterate. Among the responses, 64.1%

came from a nuclear family and 25.8% indicated they had no land of their own [Table 1].

Current prevalence of mental disorder

In all, 11.3% (or 452) of respondents experienced psychiatric illness (mental health problem presence). The poll also indicated that women accounted for 333 (12.9%) of those with mental illness, while males accounted for 119 (8.4%). Depressive disorders were the most common mental health issue, involving 8.4% of respondents (6.9% with major depressive disorder and 1.5% with dysthymia). Among the respondents, 1.7% had panic disorder, 2.3% had agoraphobia, and 1.8% actively considered suicide [Table 2].

Table 1: Sociodemographic profile of the study population

Sociodemographic variable	Frequency	Percentage
Gender		
Males	1417	35.4
Females	2574	64.4
Data not available	9	0.2
Age group		
18–40	2266	56.7
40–59	1208	30.2
60 and above	517	12.9
Data not available	9	0.2
Education		
Illiterate/no education	2065	51.6
Up to High School	530	13.3
Above High School	1397	34.9
Data not available	8	0.2
Family type		
Nuclear	2562	64.1
Joint	1324	33.1
Extended	103	2.6
Data not available	11	0.3
Land ownership (in Kanals)		
0	1030	25.8
1-3	931	23.3
4-8	897	22.4
>9	928	23.2
Data not available	214	5.4

Table 2: Current prevalence of mental disorder

Variable	Diagnosis	Frequency	Percentage
Depressive disorders	Major depressive disorder	276	6.9
	Dysthymia	61	1.5
	Total	337	8.4
Anxiety disorders	Panic disorder	66	1.7
	Agoraphobia	90	2.3
	Social anxiety disorder	17	0.4
	Generalized anxiety disorder	26	0.7
	Total	199	5.1
OCD and Related disorders	Obsessive compulsive disorder (OCD)	41	1
Trauma-stress related disorders	Posttraumatic stress disorder (PTSD)	40	1
Bipolar disorders	(Hypo) manic episode	37	0.9
Psychotic disorders	Psychotic features	5	0.1
Suicidality	Suicidality	71	1.8
Any diagnosis	Any diagnosis	452	11.3

Current psychiatric disorders as per sociodemographic correlates

About 10% of the respondents (from 2265) in the age group of 18–40 years had a mental health disorder. The prevalence of mental health disorders was much higher among women (12.9%) than men (8.4%) and those who were either divorced or separated or widowed had a significantly higher morbidity (14.7%) [Table 3].

Access to treatment

Only 12.6% of the 452 participants who reported having a mental health illness were able to say that they had received any form of medical care for their condition.

Discussion

Population composition

As most housework falls on women, it makes sense that they would be more likely to respond to this survey during the interview time, which was narrower for men. More over a third of respondents (34.9%) held college degrees or above. The literacy rate in Jammu and Kashmir was 68.74% in 2011,^[12] with male literacy at 78.26% and female literacy at 58.01%. The study was conducted in rural and distant areas, where access to education is limited, which may explain why there were fewer literate people in our sample. Land ownership data are missing for

5.4% of respondents because they did not report it. According to macro-data on land holdings in Kashmir, over 94% of farmers in J and K are considered small and marginal farmers (owning less than 2 acres of land).^[13]

Prevalence of mental disorders

The prevalence of mental disease in the modern era is reflected in this research, but not the cumulative toll of such illness over a lifetime. Nonetheless, this level of illness at 11.3% is of a highly serious character because the study only included active psychiatric disorders present at the time of survey. Using the MINI Plus, the NMHS discovered a prevalence of 10.6%, significantly higher than the 7.3% found in the rest of India (national mean: 7.3%).^[4,5] Our results are contradictory to those found in another war-torn region of Afghanistan, where 38.5 percent of residents exhibited “depressive symptoms”.^[14] Population movement may explain for the increased frequency observed in that study despite the lack of a specialized screening or diagnosis technique. PTSD was also reported by 1% of respondents, which is significantly higher than the national average rate of 0.2% found in NMHS.^[5] The prevalence of PTSD was 11.8% in another study conducted in a war-torn region of Northern Uganda.^[15] In most cases, PTSD appears as a comorbid disease with depression, which may explain why this study found lower rates of PTSD than previous research in Kashmir.^[16] Intentional self-harm, including suicide and parasuicide, has been on the rise in Kashmir for some time now.^[17] The rise in Para suicides and deliberate self-harm, both of

Table 3: Current psychiatric disorders as per sociodemographic correlates

Sociodemographic variable	Frequency	Prevalence of current psychiatric disorder	Percentage	Chi-square/P
Gender				
Males	1417	119	8.40	18.76/0.001
Females	2574	333	12.93	
Data not available	9			
Age group				
18–40	2266	227	10.01	7.3351/0.02
40–59	1208	161	13.33	
60 and above	517	64	12.0	
Data not available	3991			
Marital status				
Unmarried	1123	98	8.73	11.55/0.003
Married	2685	326	12.14	
Divorced/separated	190	28	14.73	
Education				
Illiterate/no education	2065	262	12.69	14.3624/0.04
Up to High School	530	68	12.83	
Above High School	1397	122	8.73	
Ration card				
APL	1917	196	10.2	11.55/0.04
BPL	1559	169	10.8	
AAY	355	58	16.3	
None	75	9	12.0	
Data not available	94			
Land ownership (in Kanals)				
0	1030	134	13.0	7.7651/0.02
1–3	931	106	11.4	
4–8	897	104	11.6	
>9	928	84	9.1	
Data not available	215			

which are highly predictive of further suicide attempts, is of even more concern.^[18] The 1.8% of respondents among a sample of 4000 would mean that almost 1775 persons per lakh population would have active suicidality in Kashmir. The prevalence of this is much higher in those who suffer from mental illness. The seriousness of the problem is reflected in the high rate of successful suicide attempts.

Socio-economic determinants of mental health disorders

This study's findings indicate that the prevalence is highest among people aged 40–60, with a modest increase between the younger and older age groups. Women had a higher prevalence of mental health issues (12.9%) than men (8.4%), according to the National Survey of Mental Health.^[5] Several research in India and abroad back up the claim that women are disproportionately impacted by mental health problems.^[19,20] Those with a high school diploma or less are more likely to experience mental illness than those with a college degree, according to the NMHS, which also revealed that males had a higher incidence than girls. Because socioeconomic considerations influence levels of schooling, this measure can be seen as a proxy for one (those with higher socioeconomic status can afford to educate their children to a higher degree than those with lower socio-economic status). There will be fewer cases of mental illness if people have higher levels of education. The study has shown that those who were either divorced or separated or widowed had a significantly higher morbidity (14.7%) than those who were married or never married. There is a correlation between being in such a situation and having a lower socioeconomic status, making persons in such a position more vulnerable to the adverse consequences of stress. Nonmarried people in the study had a significantly lower incidence of mental illness.

Land ownership data were collected as a proxy for socioeconomic level in this study. Data from family ration cards were also gathered for the probe. The universal nature of J and K's Public Distribution System (PDS) makes ration card problems like inclusion and exclusion less common.^[10,21] Under PDS, the government divides its inhabitants into several ration card groups based on a range of economic indicators. Hence, different types of ration cards reflect various economic standings.^[21] Previous research from the same location^[22] supports the finding of increased morbidity among those of low socioeconomic status that we found in our study.

Access to treatment

Only 12.6% of respondents had any medical treatment for their illness, as seen in Table 4. In almost all cases, the lack of therapy only makes matters worse and makes individuals sicker. The study found that the cost of a full course of treatment (as administered by a psychiatrist) was much lower. Table 4 also displays the availability of mental health treatment options. Just 6.4% of people in need of mental health care actually sought it, seeing a psychiatrist in either public or private practice. Many people who

Table 4: Access to treatment

Source	Frequency	Percentage
General Medical Officer at Public hospital/ Private Clinics	18	3.98
Psychiatrist at a Private clinic	18	3.98
Psychiatrist at a Govt. clinic	11	2.43
Neurologist at Public hospital/Private Clinics	4	0.88
Local chemist	3	0.66
Others	3	0.66
Any source	57	12.66

wanted medical care went to private clinics and hospitals instead of public ones. The study concludes that the mental health care system in Kashmir has not considerably improved since the initial report on the matter in 1995.^[22]

Limitations of the study

Although being a substantial demographic, children were not included in the analysis because of their heightened susceptibility to mental illness in the context of the valley's continuous conflict. This study focuses on ten of the most common disorders affecting mental health. The study did not look at how often or rarely people were exposed to conflict. These considerations are crucial for a holistic understanding of mental health, but they are beyond the purview of this investigation. This study, along with its results on other aspects of mental health, is expected, however, to influence future scholarly endeavors.

Summary and Conclusion

The study surveyed 4000 people across two districts of Kashmir and indicated that 11.3% of adult population suffers from mental illness in the valley. Women, those with lower levels of education, and the poor were shown to be at a greater risk. Mental illness and socioeconomic position are linked as shown in the current study. The use and delivery of mental health services have undergone significant change in recent years. Primary care physicians who are now serving as primary psychiatric care physicians are managing a sizable number of patients, notably those with depression and anxiety disorders. This is especially true in a place like Kashmir today, where the demand for mental health services is great and cannot be met by the present supply of mental health specialists. To better the emotional and psychological health of its citizens, the UT of J and K should institute a community mental health program that provides services such as stigma reduction, treatment for underlying medical conditions, education campaigns, in-home therapy, and access to public psychiatric care.

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Conflicts of interest

There are no conflicts of interest.

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