Mental Health Problems in India: A Study done in Twenty States of India Using Census 2011 Data

By

Sampan Rattan

Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2015-2017

The IIHMR University, Jaipur

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INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Sampan Rattan student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at National Health Mission, Madhya Pradesh from 6th February to 6h May, 2017.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Col. (Dr.) Ashok Kaushik
Dean, Academics and Student Affairs
The IIHMR University, Jaipur

Dr. Monika Chaudhary
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जिला शीघ्र हस्तक्षेप केन्द्र (DEIC)

जिला चिकित्सालय सागर

The Certificate is awarded to

Dr. Sampan Rattan

In recognition of having successfully completed her Internship at

National Health Mission, Madhya Pradesh

and has successfully completed her Project on

Mental Health Problems In India : A Study done in twenty states of India using Census 2011 Data

She comes across as a Committed, Sincere & Diligent person who has a strong drive & zeal for learning

We wish her all the best for future endeavours

Dr. R.S.Jayant
DEIC Nodal Officer
National Health Mission
District Hospital Sagar (MP)

नोडल ऑफिसर
जिला शीघ्र हस्तक्षेप केन्द्र (DEIC)
जिला चिकित्सालय, सागर (म.प्र.)

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled Mental health problems in India: A study done in twenty states of India using Census 2011 and submitted by Sampan Rattan Enrollment No. 0342 under the supervision of Dr. Monika Chaudhary for award of MBA in Hospital and Health of the University carried out during the period from 6th February to 6th May embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Signature

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that all ethical issues have been considered while collecting data for my dissertation titled Mental health problem in India: A study done in twenty states of India using Census 2011 data

Signature of student

ACKNOWLEDGEMENT

I would like to acknowledge with utmost gratitude the co-operation extended by the healthcare management faculty of my college.

I would like to express my deep sense of gratitude to my mentor at college, Dr. Monika Choudhary for her counsel. Without her unwavering and continuous guidance this project would have been but a thought.

A special thanks to Dr. R.S.Jayant, DEIC nodal officerfor allowing me to pursue my dissertation topic. He has been so helpful all the time and making this dissertation period an unforgettable experience.

I’m deeply in debt to District early intervention Centre team whose coordination and assistance throughout my dessertation period. Along with this I'm in debt to my dear friend Eti Khatri whose support throughout this duration was an inspiration.

Finally and most importantly, I would like to thank God for allowing me to complete my project, my beloved parents for their blessings and friends for their help and wishes for the successful completion of this dissertation.

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ABBREVIATIONS

WHO - World health organisation

DALY- Disability- Adjusted Life Years

YLD- Years Lived with Disability

NIMHANS- National Institute of Mental Health Neurosciences

IHBAS-Institute of Human Behaviour and Allied Sciences

J&K- Jammu and Kashmir

M.P- Madhya Pradesh

U.P- Uttar Pradesh

CMD- Common mental disorders

Bimaru- Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh

1. INTRODUCTION

The World Health Organization defined health in its broader sense in its 1948 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." World Health Organization European Ministerial Conference on Mental Health stated that "No health without mental health", 2005. It described indispensable role of mental health in health care writ at the large. The global impact of mental illness is ample and substantial. With mental illness constituting a DALY estimated of 7.4% of the world's measurable burden of disease by WHO. The human damage of mental disorders is further coalesced by collateral effects on health and social well-being, which is often accompanied with "exposure to stigma and human rights abuses, forestallment of educational and social opportunities, and entry into a pernicious cycle of social disenfranchisement and poverty." According to Census 2001 defines mental disability as "A person who lacks comprehension appropriate to her/his age will be considered mentally disable. This would not mean that if a person is not able to comprehend her/his studies appropriate to her/his age and is failing to qualify her/his examination is mentally disabled. Mental retarded and insane persons would be treated as mentally disabled. A mentally disabled person may generally depend on her/his family members for performing daily routine. It should be left to the respondent to report whether the member of the household is mentally disabled and no tests are required to be applied by you to judge the member's disability."
Mental illness was a new category introduced at Census 2011. And mental illness was covered underneath the category of mental disability at Census 2001.

According to Census 2011 **Mental Illness – Code 6** is in points below

- "Has observable changes in thinking, feelings and/or behaviour" or
- "Exhibits unnecessary and excessive worry, unexplained withdrawal or problems in sleep, loss of appetite and/or depression, thought of dying "
- "Exhibits repetitive (obsessive-compulsive) behaviour/ thoughts;" or
- "Exhibits mood swings (joy and sadness) "
- "Has unusual experiences - such as hearing voices, seeing visions, experience of strange smells" or
- "Exhibits unusual behaviours like talking/laughing to self, staring in space, excessive fear and suspicion without reason; "or
- "Is taking medicines or other treatment for mental illness;"or
- "Is having old age related problems like loss of memory, depression, etc."
  "Note: Record only what the respondent reports. Please do not dispute or enter into any kind of discussion or debate on the issue. "

Further according for better understanding Nimesh Desai, psychiatrist, director of the Institute of Human Behaviour and Allied Sciences (IHBAS), in New Delhi defined "Mental disorders can be divided into two broad groups - severe mental disorder, such as schizophrenia and bipolar disorder and common mental disorder (CMD) such as depression, anxiety and others. Across time, history, cultures and countries, the percentage of prevalence of severe mental disorders do not differ too much. This is because these are predominantly genetically caused. But the percentage prevalence of CMD will vary depending on the psychological atmosphere and social

milieu. Broken homes, professional and relationship-related stress are some of the factors that contribute to rise in the prevalence of CMD,"

The WHO report as well states that depressive (mental) disorders are characterized by sadness, feelings of guilt, loss of interest or pleasure, or low self-worth, feelings of tiredness, disturbed sleep or appetite and poor concentration. Anxiety disorders refer to a group of mental disorders characterized by feelings of fear and anxiety, along with generalised anxiety disorder (GAD), panic disorder, obsessive-compulsive disorder (OCD), phobias and post-traumatic stress disorder (PTSD) and social anxiety disorder.

2. REVIEW OF LITERATURE

The global burden of mental illness remained largely unrecognized until the era of 1990s but in 1995, WHO outlined an agenda addressing the global dilemma in mental health. The second leading cause of YLDs globally is Major depressive disorder and ranks among the four largest contributors to YLDs in each of the socially diverse regions spanning the six continents assessed in the Global Burden of Disease Study 2010. Anxiety disorders, alcohol-use disorders, drug-use disorders, schizophrenia, dysthymia and bipolar disorder also rank amongst the 20 conditions that form a large chunk of global share of YLDs. More than 75% of persons with any type of serious mental illness are living in less-developed countries and are unable to receive treatment for it.
The prevalence of depression worldwide has by 18% elevated from 2005 to 2015. At present there are literally 322 million people suffering from depression in the world. "Nearly half of these people live in the South-East Asia Region and Western Pacific Region, reflecting the relatively large populations of those two regions (which include India and China, for example)," as per a WHO report, 2015
In 2013, healthy life were lost to mental illness was about 31 million years in India. Estimates suggest by 2025, 38.1 million years shall healthy life shall be lost in India (23 per cent increase)
According to Thinkstock Images about60 million Indians are suffering from any type of mental disorders which is a number more than the population of South Africa who suffer from mental disorders.
About 1-2 per cent of Indian population that is nearly 10-20 million people suffered from severe mental disorders such as bipolar disorder and schizophrenia, and while 5 per cent of population nearly 50 million suffered from common mental disorders like anxiety an depression by 2005, as per Minister J.P. Nadda Health and Family Welfare Department informed the Lok Sabha in May 2016, after analysis done from the data by National Commission on Macroeconomics and Health, 2005.

MUMBAI times stated that “Not only 56 million Indians or 4.5% of India's population suffer from depression at this moment; another 38 million Indians suffer from anxiety disorders. Thus, according to the latest World Health Organisation report on depression released on Thursday, April 2017 almost 7.5% of Indians suffer from major or minor mental disorders that require expert intervention.”
The WHO prevalence report highlights what Indian psychiatrists have been saying that the burden of depression is increasing and cannot be ignored. In October 2016, the NIMHANS

released a mental health survey that described that the incidence of depression is almost one in every 20 Indians or around5% of the population.

During the past two decades in India, Community-based surveys conducted showed that the total prevalence of mental disorder was around 5.8%. In contrast to the recent National Sample Survey Organization report which actual revealed prevalence as little as 0.2%. Very few community-based studies have been conducted in India to understand the problem. Such studies will be a useful tool for developing community-based rehabilitation programs for the mentally disabled.

Epidemiological studies on psychiatric morbidity in India have been analyzed by epidemiological findings on prevalence of mental disorders in India by H.C. Ganguli of fifteen in which national all-India prevalence rates for all type of mental disorders' and five specific disorders had been worked out. The national prevalence rates for all type of mental disorders' arrived at are 70.5 (rural), 73 (urban) and 73 (rural + urban) per 1000 population. Indian Journal of Psychiatry, 2000, 42 (1), 14-20.

Another meta-analysis on prevalence of mental and behavioural disorders in India is done by m. Venkataswamy Reddy & C.R. Chanorashekar concluded "a higher prevalence for urban sector, females, age group of 35-44, married/widowers/divorced, lower socioeconomic status, and nuclear family members were confirmed". Not only was this but hysteria and epilepsy found significantly high in rural communities. Manic affective psychosis, alcohol/ drug addiction, mental retardation and personality disorders were significantly high in males. The findings indicated very prominently that there are around 1.5 crore people suffering from severe mental disorders (psychoses) in India.

3. RESEARCH DESIGN

3.1. RESEARCH QUESTION

Mental illness in India are on rise so if we take reported data of mental illness and analyze it on age-wise, sex-wise and state-wise divide what are the trends that emerge ?

3.2. OBJECTIVES

To understand the prevalence of mental illness in twenty states of India as per the data of Census 2011 and study the trend that emerge.

3.2.1. SPECIFIC OBJECTIVES

- To compare the interstate prevalence of mental illness in Indian population in twenty states of India.

- To study the demographic trends of mental illness of twenty states of India as per the data of Census 2011.

3.3. METHODOLOGY

Study Design – A descriptive cross-sectional study which is done by collecting secondary data from the Census 2011 that is used to analyze the situation of mental illness in twenty states of India.

Study Duration – The study is conducted for a period of three month of the dissertation period allotted to us, 6th February 2017 to 6 May 2017that is till the completion of the research.

Method of Data collection- Mental illness data is collected from Census 2011 for twenty states of India. The states chosen are Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh, Tamil Nadu and West Bengal.

Statistical Method Procedure – The data is collected from Census 2011 and is filtered as per the requirement for research question and objective. The sorted data is then analyzed on Microsoft excel software. Sorted Census data of mental illness in twenty states of India is analyzed using graphs. The demographic trends and interstate comparison on mental illness is done.

4. RESULTS

4.1. AGE-WISE DATA ANALYSIS

PREVALENCE OF MENTAL ILLNESS IN INDIA

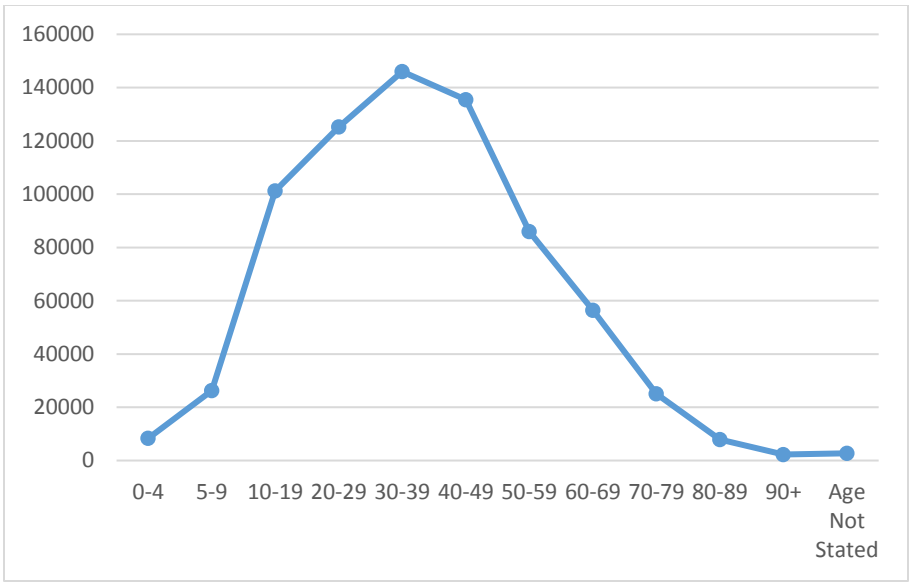

Figure 1 Total mental illness distribution by age in India

Figure1. The graph curve forms a bell shape whose peak is seen at the age group of 30-39 years old in which a total of 146012 person of the population are suffering from mental illness according to India statistics in 2011. From 0-9 year old age group the report cases are less but a steep rise in cases is seen in the adolescent age group (10-19year old). This may be due to late diagnosis along with the pressures increase in the adolescent ages. The curve keeps on elevating with the increase in the productive ages till 30-39 year old age group but starts to decline from 40-49 years old age group and a steep fall is visible in age group 50-59 years old and then the cases of mental illness fall at a regular pace. And at the age of 80years onwards the reported cases are very low as of low survival rate at this age.

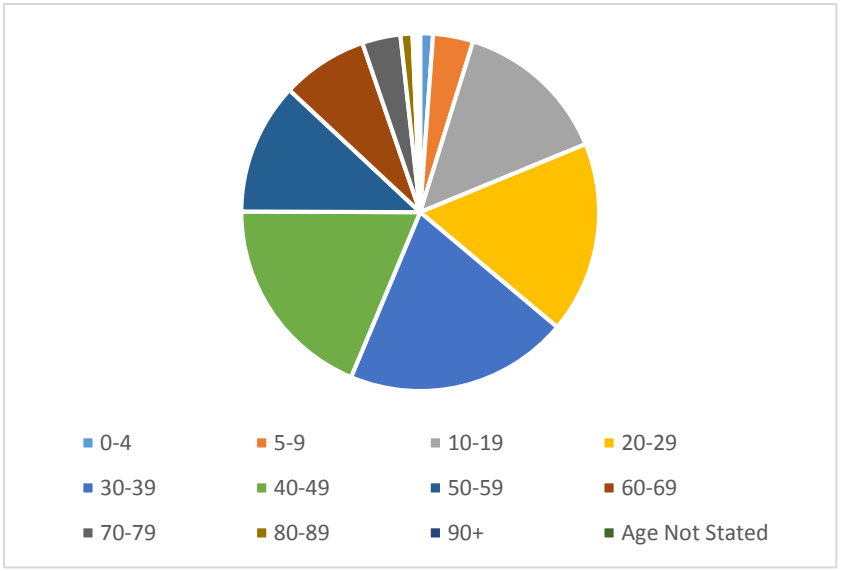

Figure 2: Mental illness distribution by age in India

Figure 2. It can be seen that a maximum bulk of the mental illness cases belong to the age group 30-39 years old followed by the 40-49 years old having as of 135502 person suffering from any kind of mental illness. Following them is young adult (20-29) age group no less with 125263 people affected from mental illness and 101189 person suffer from mental illness in the adolescent (10-19) age group.

4.2. SEX-WISE DATA ANALYSIS

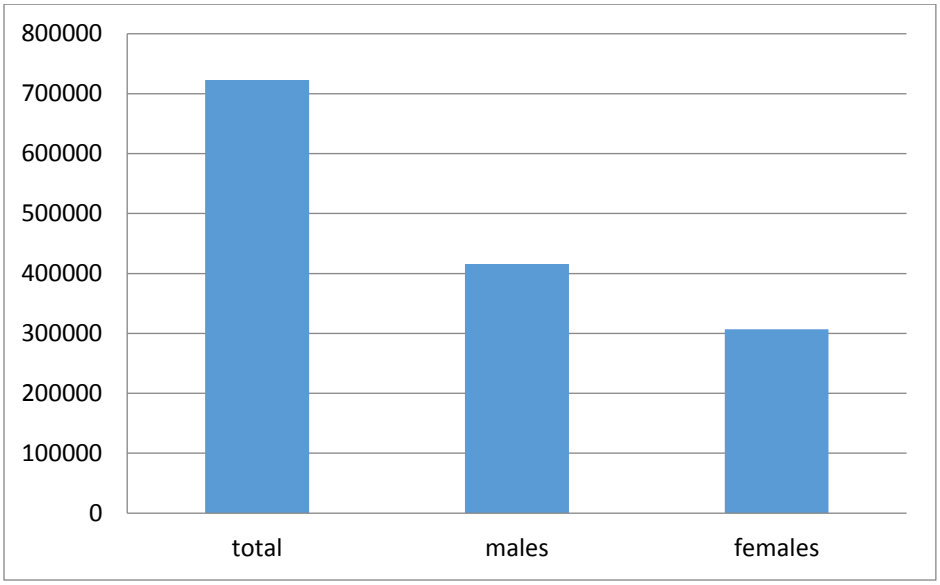

Figure 3: People suffering from mental illness in INDIA in absolute number

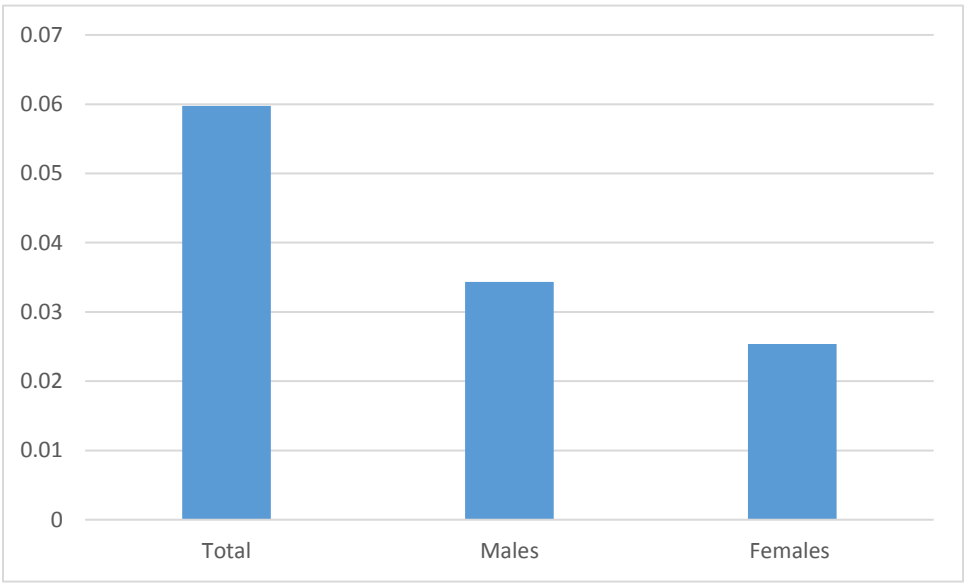

Figure 4: People suffering from mental illness in INDIA

Figure 3& 4 . Shows around 0.06 percent of population as in of 2011 were suffering from mental illness that is 722826 people of the 12.1 crore of Indian population. Out of these 0.034 per cent males and 0.026 per cent were and females. Respectively 415732 males and 307094 females were affected by any kind of mental illness.

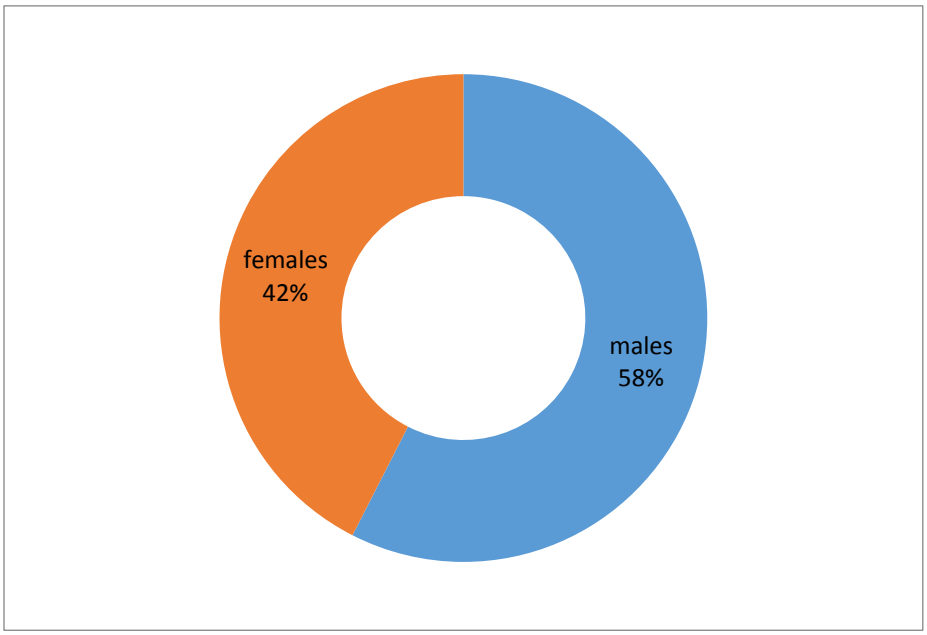

Figure 5: Mental Illness Distribution among Male and Females

Figure 5. Shows maximum number of population having mental illness is male whereas 42% are females. This may be due to the fact that the female mental illness is more stigmatized than males and the problem of females are ignored by others as well as by themselves until and unless it becomes severe.

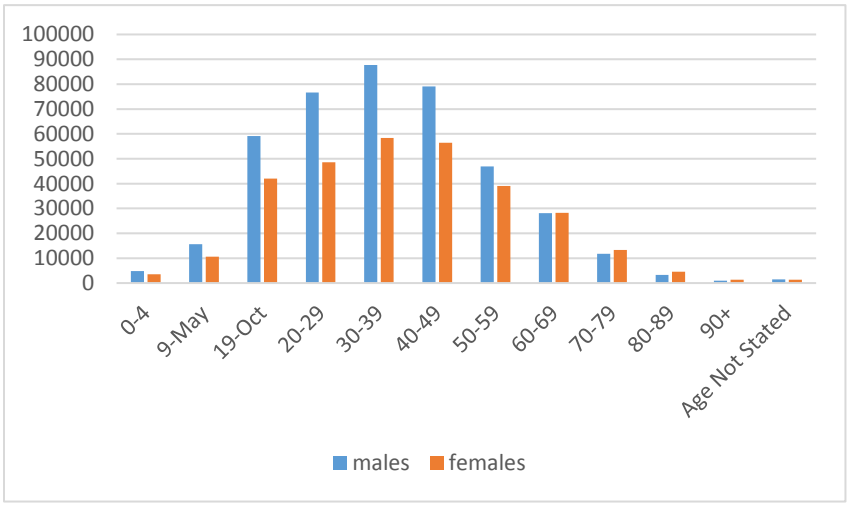

Figure 6: Total Mental illness distribution age wise among males and females in India

Figure 6. It is prominently visible that from age group 0-4 years old to 50-59 years old the population suffering from mental illness is mostly in males than females. Specially when we view the age groups of adolescent (10-19 years old), young adults (20-29 years old) and adults (30-39 years old and 40-49 years old) more number of cases of mental illness are reported by males when compared to females of same age. These are the ages when female tend to be busy in the family lives and concentrate on their children and focus less on themselves and their health weather being physical, social or mental health. Since males of these age groups are the bread earner of the family are seem to be given more attention along with their health is of much importance.

4.3. INTERSTATE WISE DATA ANALSIS

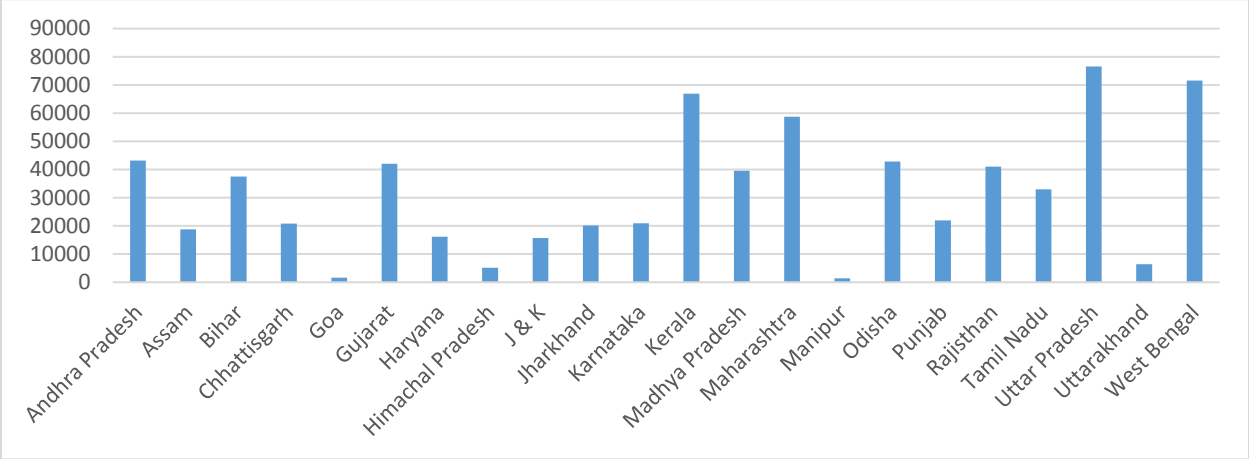

Figure 7: State wise prevalence of mental illness

Figure 7. Shows the number of the people suffering from mental illness in 2011 in each state. As according to this Uttar Pradesh (76603) has highest number of mental illness cases followed by West Bengal (71515) and Kerala (66915). Maharashtra with 58753 mental illness cases stands on the fourth while Odisha with 42837 stands on fifth which is followed by other large states as Gujarat and Rajasthan. While the other smaller states have less cases like Goa has 1675 mental illness cases and Himachal Pradesh has 5166 reported mental illness cases. Manipur had 1405 mental illness cases.

Percentage of mental illness cases in twenty states of India relative to their population

STATES	
Andhra Pradesh	0.051039
Assam	0.060307
Bihar	0.036043
Chhattisgarh	0.08155

Goa	0.11484
Gujarat	0.069552
Haryana	0.063866
Himachal Pradesh	0.075256
J & K	0.124939
Jharkhand	0.061104
Karnataka	0.03423
Kerala	0.200308
Madhya Pradesh	0.054406
Maharashtra	0.052283
Manipur	0.049198
Odisha	0.102056
Punjab	0.079028
Rajasthan	0.05988
Tamil Nadu	0.04569
Uttar Pradesh	0.038337
West Bengal	0.07835

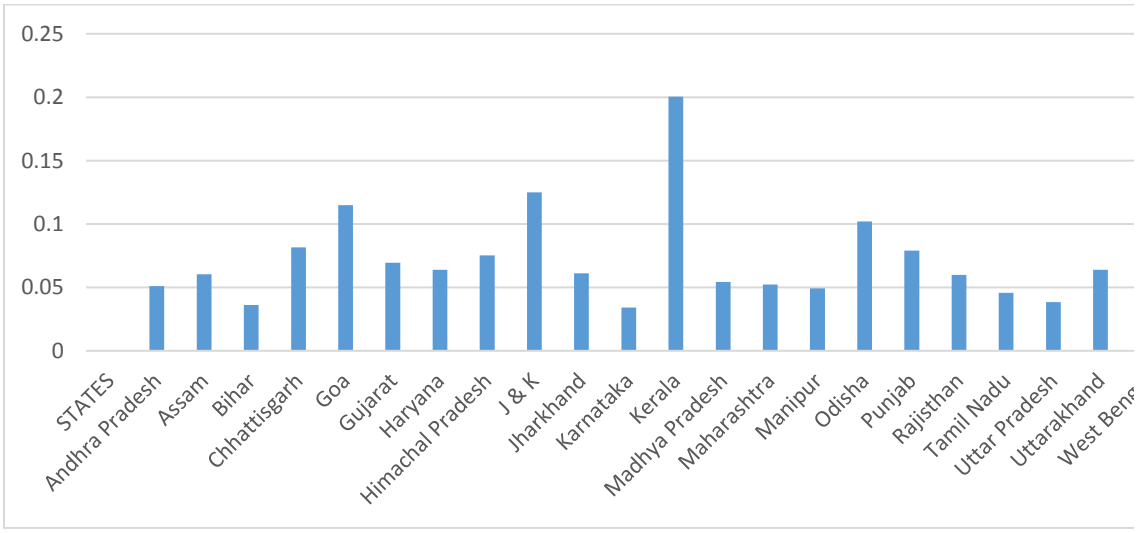

Figure 8: Percentage of mental illness cases to state's population

Figure 8. It illustrates the percentage of cases of mental illness in individual state of India to the population of the individual state. This provides us with a clear picture that which states have a higher prevalence of mental illness cases, where Kerala has the highest percentage of 0.2% which is followed by Jammu and Kashmir. Goa with 0.11%, Odisha 0.10% and Chhattisgarh with 0.08% of mental illness cases. States like Punjab and Himachal Pradesh account for almost the same percentage, 0.079 and 0.75 per cent respectively.

While when we come to see the lowest percentage of mental illness cases in individual state of India to their respective population we observe that Karnataka has the minimum percentage of 0.034 preceding were Bihar and Uttar Pradesh with 0.036 and 0.038 percent. Tamil Nadu (0.045%) and Manipur (0.049%) even have low percent of cases of mental illness. This variation from Kerala and Karnataka is due to low reporting of cases of mental illness due to poor record system or basically due absence of any facility in that state. When taking into account the population, state like Goa and Himachal Pradesh with small population and less criminal rate seems to have more percentage than states like Uttar Pradesh and Maharashtra whose population is high as well as their criminal rate is high have low percentage because of poor records system along with high level of stigmatization, people tend to ignore the matter like mental illness and remain undiagnosed.

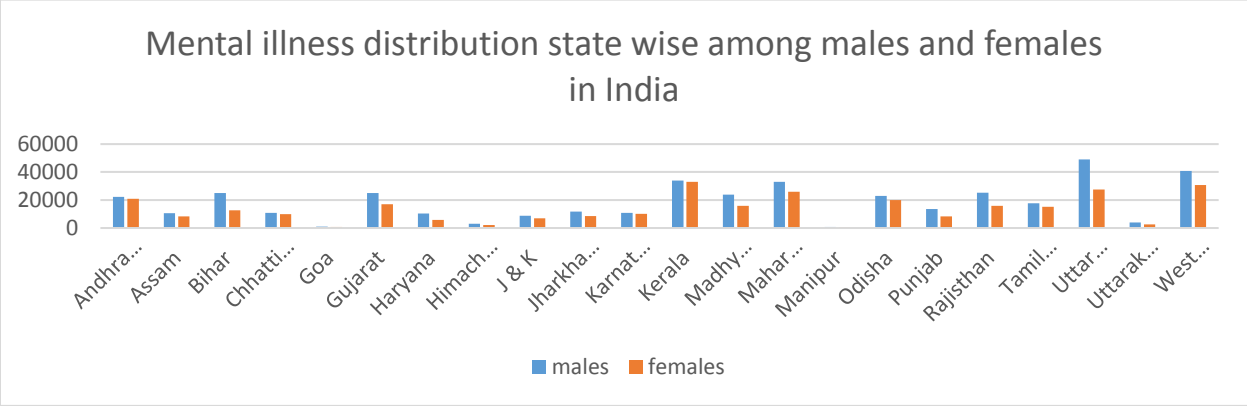

Figure 9: Mental illness distribution state wise among males and females in India

Figure 9. As the graph depicts that the male cases are more than female cases in almost all the twenty states of India. And in states like Uttar Pradesh and Bihar the ratio of males mental illness cases are a lot higher when compared among females mental illness cases in these states due to poor social level of females in the society and high dependence of females on the opposite gender to receive any health assistance from any facility.

4.4. STATE WISE DATA ANAYSIS

4.4.1. ANDHRA PRADESH

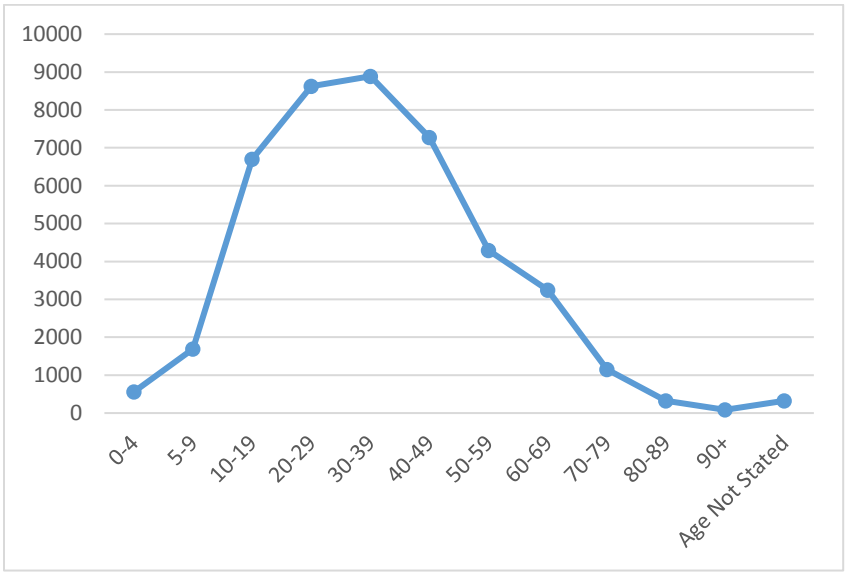

Figure 10: Mental illness distribution by age in Andhra Pradesh

Figure 10. The graph curve of Andhra Pradesh is similar to India mental illness distribution curve in both the peak is seen at the age group of 30-39 year old and from 0-9 year old age group the mental illness cases are less but a steep rise in cases is seen in the adolescent age group (10-19 years old). Then in the same pattern like India, curve keeps on elevating with the increase in the productive ages till 30-39 year old age group but starts to fall down from 40-49 years old age group and a steep fall is visible in age group 50-59 years old and then the cases of mental illness decline with increase in further age groups.

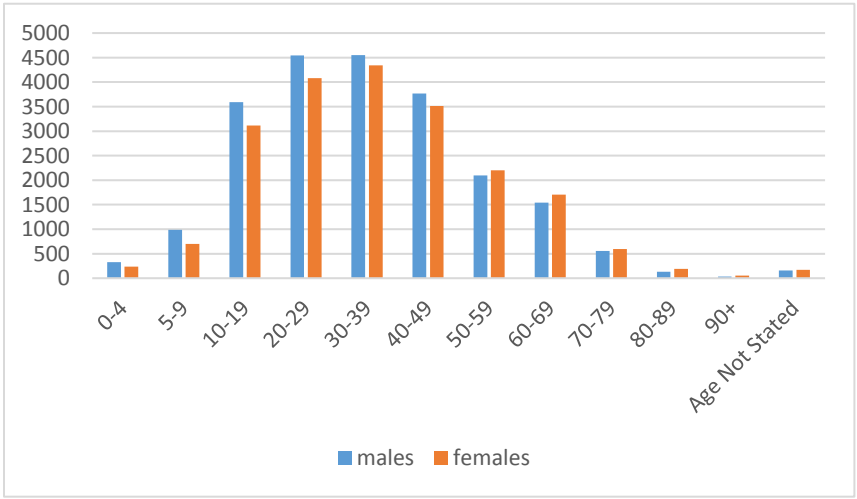

Figure 11: Mental illness distribution among males and females in Andhra Pradesh

Figure11. In Andhra Pradesh males seem to have more cases of mental illness when compared with females of same age group till the age group of 50-59 years old onwards, where more mental illness cases among females are reported than males. One of the major reasons behind this is males are the most important member of their families as them being the sole breadwinner but females tend to gain power as their age increases and her children to nurture her health.

4.4.2. ARUNACHALPRADESH

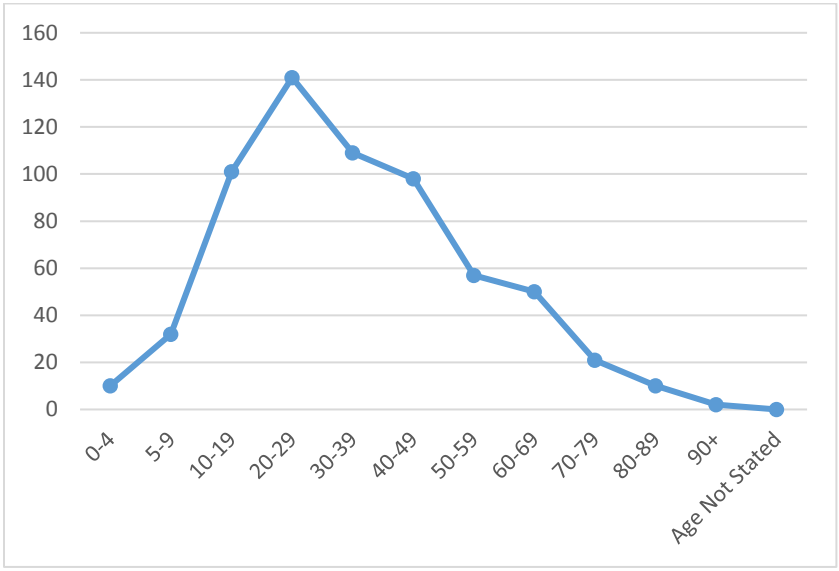

Figure 12: Mental illness distribution by age in Arunachal Pradesh

Figure 12. Arunachal Pradesh has the maximum number of mental illness cases at the age group of 20-29 years old though the reported cases are only 141. Though the cases suddenly increase in the adolescent age (10-19 years old) like India yet the peak is seen in young adult who due to high pressure of unemployment in the area as well as high violence at the border from China. But a clear analysis is difficult with this few reported cases.

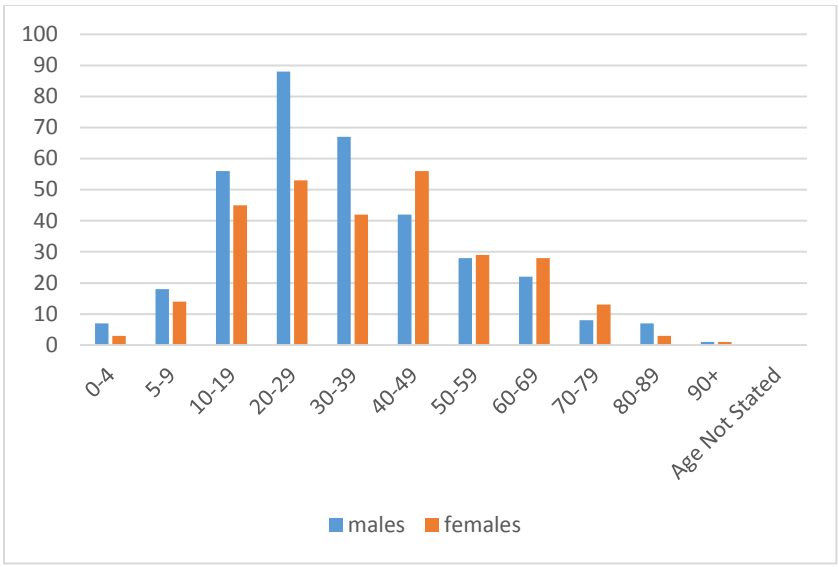

Figure 13: Mental illness distribution by age in Arunachal Pradesh

Figure 13. Shows Arunachal Pradesh experience more number of mental illness cases in males till the age group of 30-39 years old but 40 years old onwards the female mental illness cases increases but a analysis is difficult or unexplainable with few cases reported and registered and irregularities in the recording is quite clear not much importance has been give to mental illness in Arunachal Pradesh.

4.4.3. ASSAM

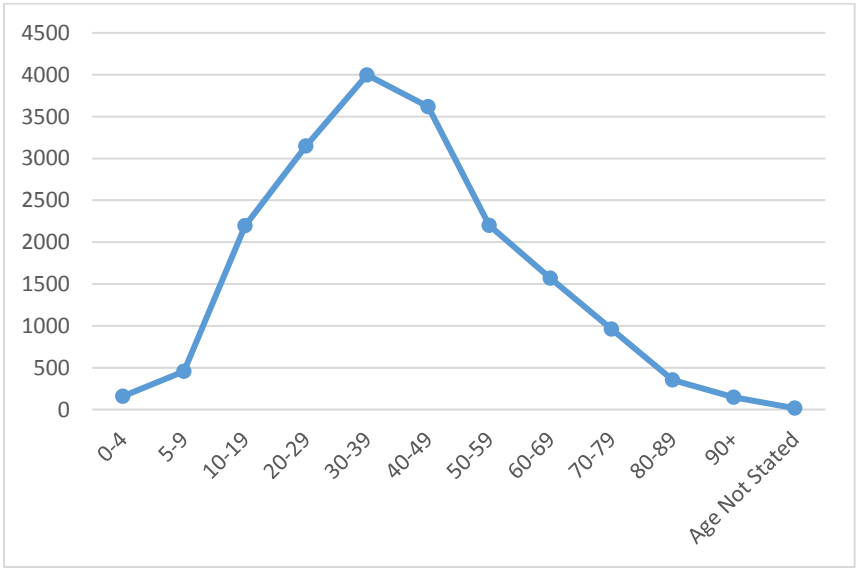

Figure 14: Mental illness distribution by age in Assam

Figure. The condition of Assam is similar to India where the highest number of mental illness cases belong to the age group 30-39 years old where the number of mental illness in total are approximately four thousand and from that point tends to decline from 40 years old onwards. A significant observation is that the number of mental illness cases in adolescents is more than 2000 cases, gives us a clear view that the mental health is started to come in notice by the government and measures need to be taken in this reference as the number of mental illness cases undiagnosed must be much more specially in this vulnerable age group which is unable to go the health specialist and unable to disclose their health issues even sometimes with their families.

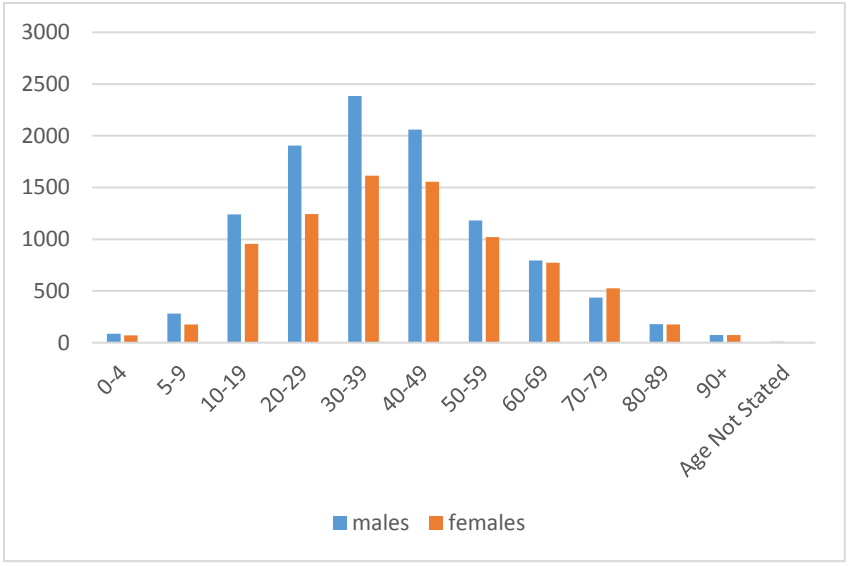

Figure 15: Mental illness distribution among males and females in Assam

Figure 15. In Assam in almost in all the age groups it is visible that male mental illness cases are more than females until from 70 years old age where the cases registered are very negligent so the female mental illness cases are noted. Assam has male dominance in the non-tribal Assamese society which has also rendered restrictions in the movement of women independently not only affecting their mental health but also increased crime against them among the so called civilized men of the Assamese society. While the tribal areas are still unable to receive any health assistance due to their beliefs, stigmas, unacceptable, inaccessibility and unavailability.

4.4.4. BIHAR

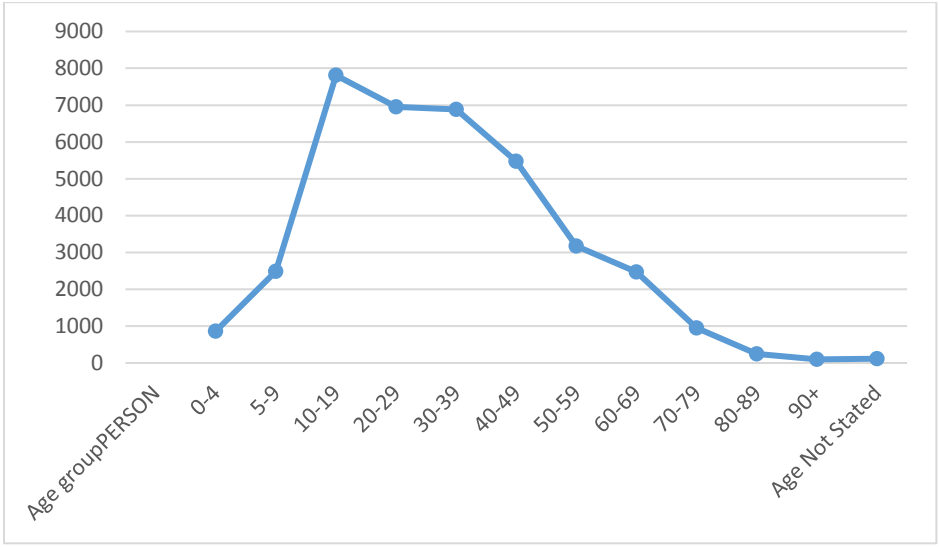

Figure 16: Mental illness distribution by age group in Bihar

Figure 16. The situation in Bihar is a little bit different as the maximum number of mental illness cases is seen among adolescents (10-19 years old), there are 7805 mental illness cases in this age group. The mental health issues account to around seven per cent in children while among adolescents it lies in between 15-20 per cent. This may be due to high rate of illiteracy and malnourishment among adolescents along with the poor care and concern for them as a family tend to have numerous children, thereby unable to provide a proper environment for their physical and mental growth. Yet not so far the age groups 20-29 and 30-39 year old, having nearly 7000 mental illness cases among them, one of the major reasons is due to unemployment and another is caste system. As according a study done by Sharadamba Roa higher caste suffer from mental disorders (schizophrenia) as they are associated with higher economic status.

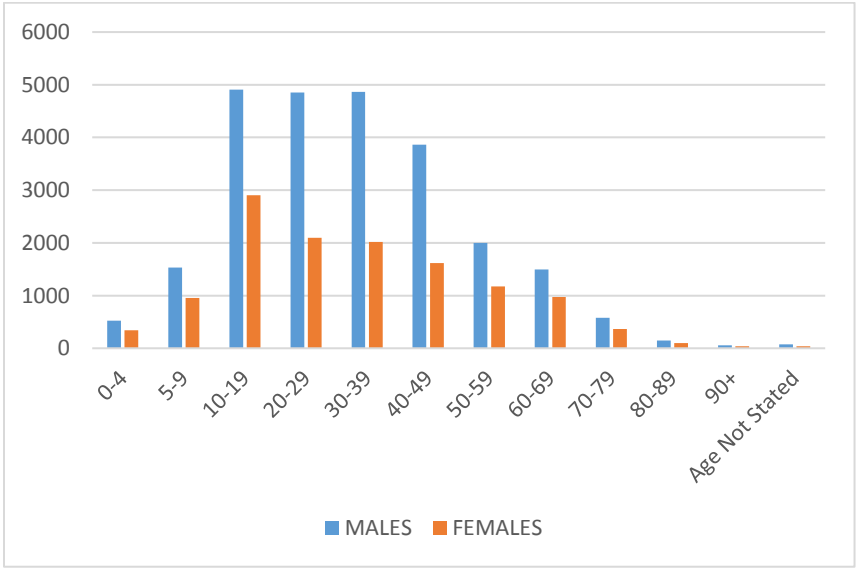

Figure 17: Mental illness distribution among males and females in Bihar

Figure 17. Bihar is a male dominant society whose clear proof lies that the most mental illness cases are reported is mostly males in all age groups. Approximately almost double cases of mental illness among males are reported than females in all the age groups especially in adolescents (10-19 years old), young adults (20-29 years old) and adults (30-49 years old). With a sex ratio of 916 /1000 males according to the census 2011 was very near to the national sex ratio of 2011 that is 914/1000 but very far from the ideal ones like Kerala having the highest sex ratio of 1084/1000 males. But the literacy rate of Bihar was at the bottom of the ladder at 63.82 per cent where the literacy rate was higher among males than compared to the females. The freedom of females is highly restricted and there is high domestic violence leading to high mental illness cases among women but which remains unnoticed and untreated.

4.4.5. CHHATTISGARH

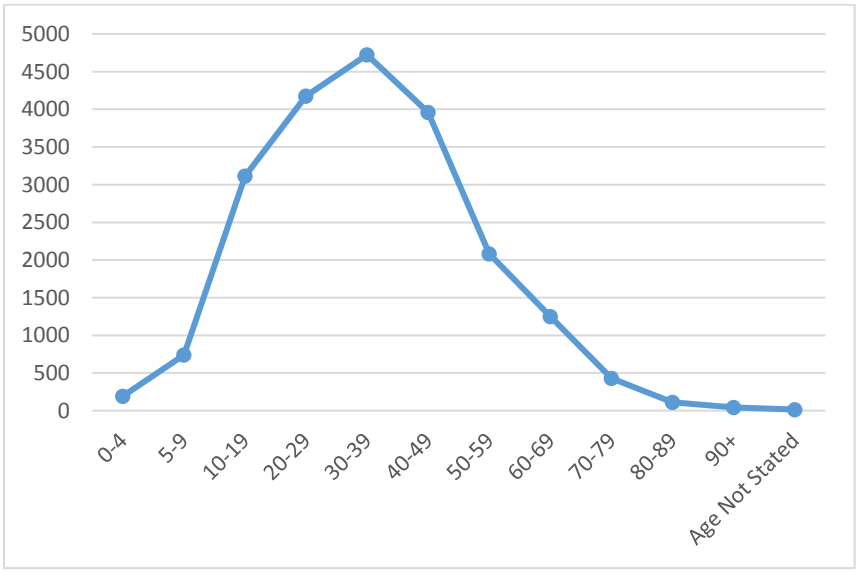

Figure 18: Mental illness distribution by age in Chhattisgarh

Figure 18. Like India, Chhattisgarh has the peak of mental illness cases at the age group of 30-39 years old with around 4724 count of cases with the age groups of 20-29 years old and 40-49 years old nearby four thousand cases. Chhattisgarh has a large forest area and the villages are situated among the forest area which covers 44.21 per cent of its geographical area. The main occupation of Chhattisgarh people is agriculture and to the wildlife not only the people there face danger to their life but also their crops are also destroyed by the wild animals. This human-wildlife conflict affects the mental health of the people; especially the productive age groups (15-

50 years old) suffer continuous stress for the survival and protection of their family members and themselves.

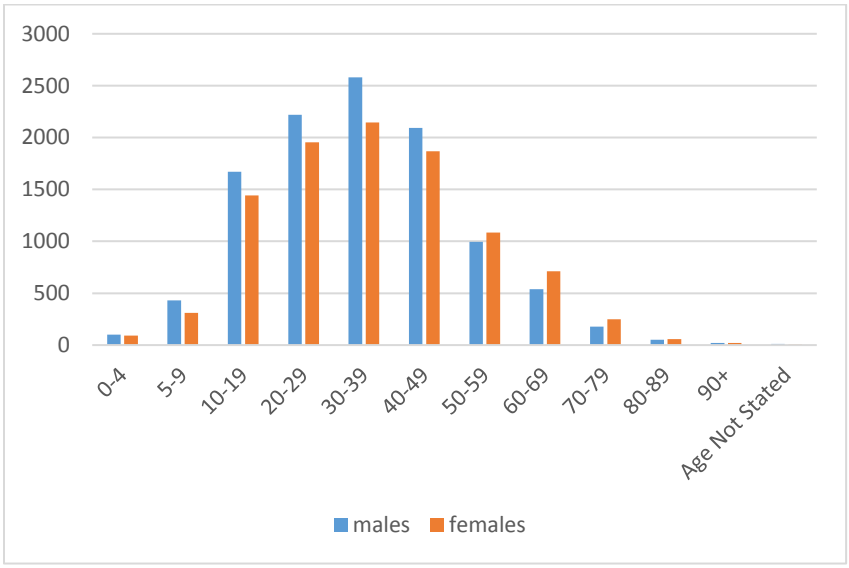

Figure 19: Mental illness distribution among males and females in Chhattisgarh

Figure 19. The mental illness cases seen are mostly males although there seems to almost equal to female mental illness cases.

4.4.6. GOA

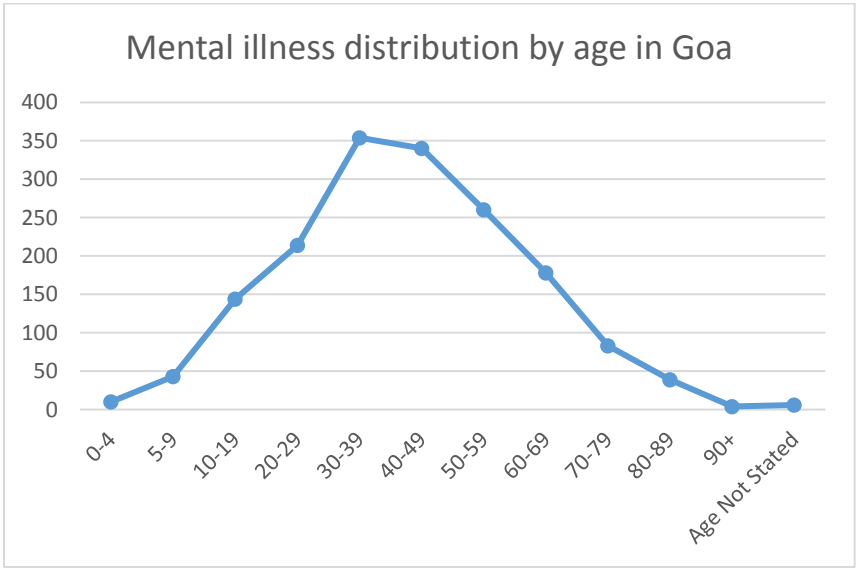

Figure 20: Mental illness distribution by age in Goa

Figure 20. The graph shows that in Goa the highest count of mental illness cases is among the 30-39 years old age group with only 345 reported cases, which is a small number in front of the 14 lakh population. All though this the percentage of reported cases is high than other states with 0.11 per cent landing Goa with third place of percentage of mental illness cases respectively to its population. But till will high level of drug abuse use the number of mental illness distribution is less as the drug abuse user vary from age but it has been seen to influence the youth more than any other age groups. Although the graph is similar to India yet there is no steep rise in the 10-19 years old age group giving shows that the importance of mental health in adolescents is still to be realised by the people.

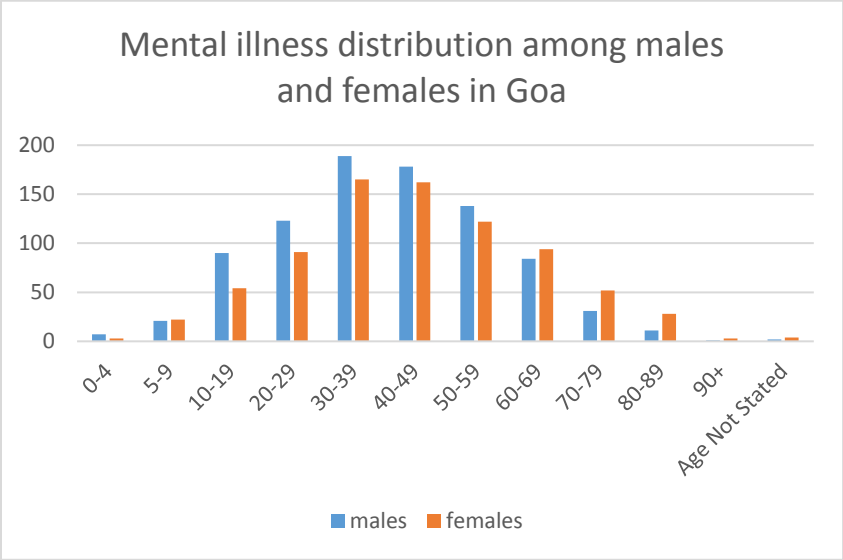

Figure 21: Mental illness distribution by age in Goa

Figure 21. Goa seems to have more males mental illness cases than females but the gap is not much between the literal count of cases among males and females as the females are know to have more freedom when compared to females in other states of India so they tend to have more focus towards their health.

4.4.7. GUJARAT

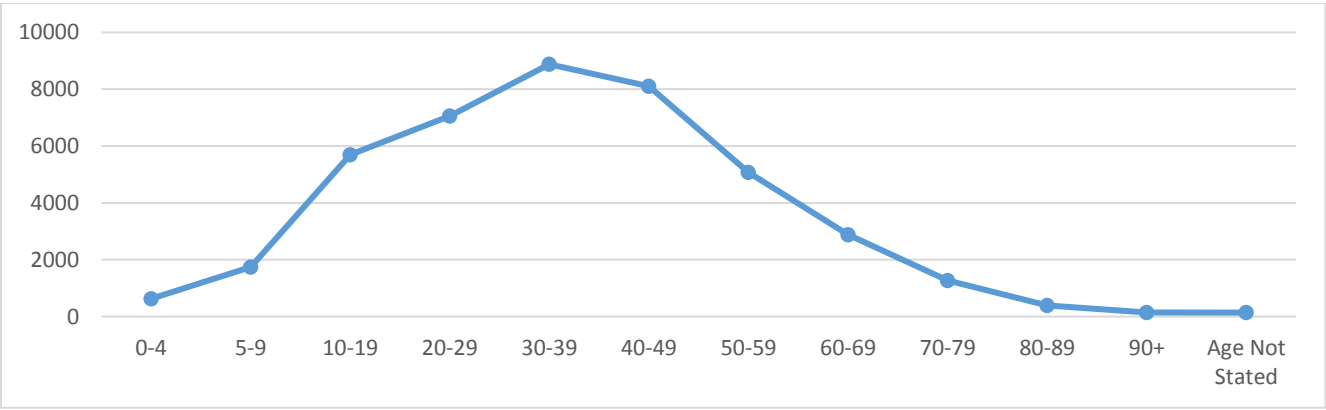

Figure 22: Mental illness distribution by age in Gujarat

Figure 22. High mental illness cases are among 30-39 years old and 40-49 years old age groups with 8878 and 8109 cases. This may be due to the work place stress and has tightly bound society that are highly traditional that causes mental health issues. The mental illness distribution is among adolescents as well, there are around 6000 cases this maybe as the literacy rate of Gujarat is high and the children suffer from school stress. Along with socioeconomic conditions play a major role in mental health and the part of Gujarat is the Kutch where living is difficult as not only it forms a desert area where bread earning becomes a daily fight for the people causing high mental illness.

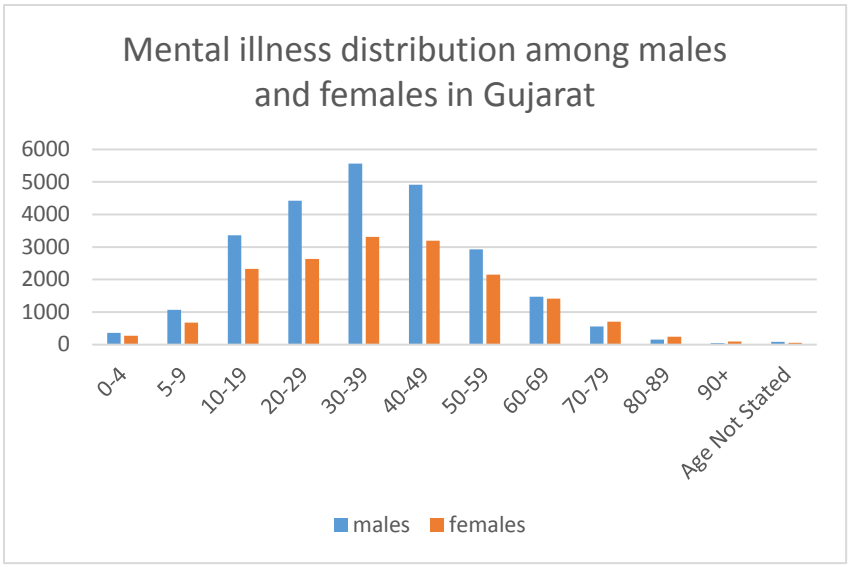

Figure 23: Mental illness distribution among males and females in Gujarat

Figure 23. Gujarat is a safe area for the all, the crime rate is very less but the rural society there is male dominated and males are give importance as it is visible in the bar graph for the same age group female cases are less reported and this becomes prominent from the age of 5 years from which age a better diagnosis is possible among the mental ill patients.

4.4.8. HARYANA

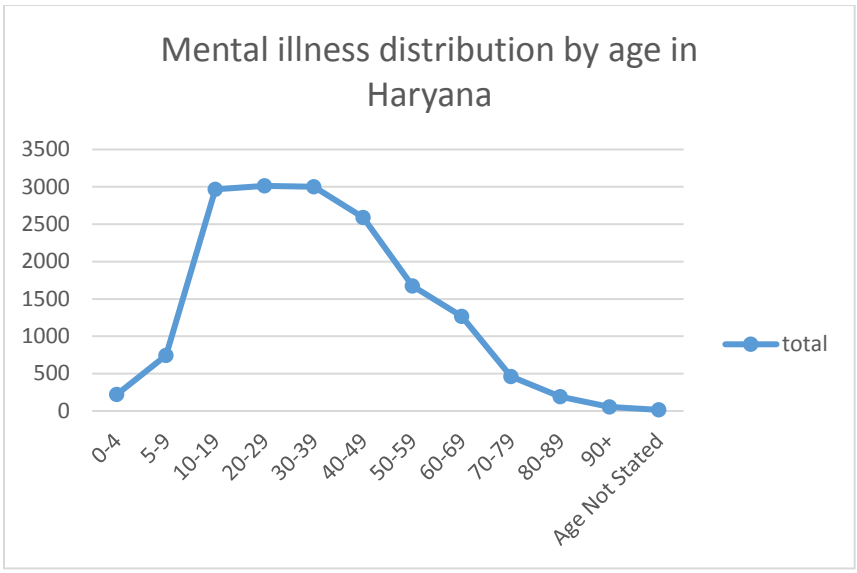

Figure 24: Mental illness distribution by age in Haryana

Figure 24. Haryana seems to have a high mental illness cases in productive age from the age of 10 years old onwards to 50 years old, this because of high discrimination among people regarding caste. There is not much employment and not much education level thereby more criminal activities are prone in multiple places in Haryana. More violent steaks are seen at an early age among children affecting their mental health.

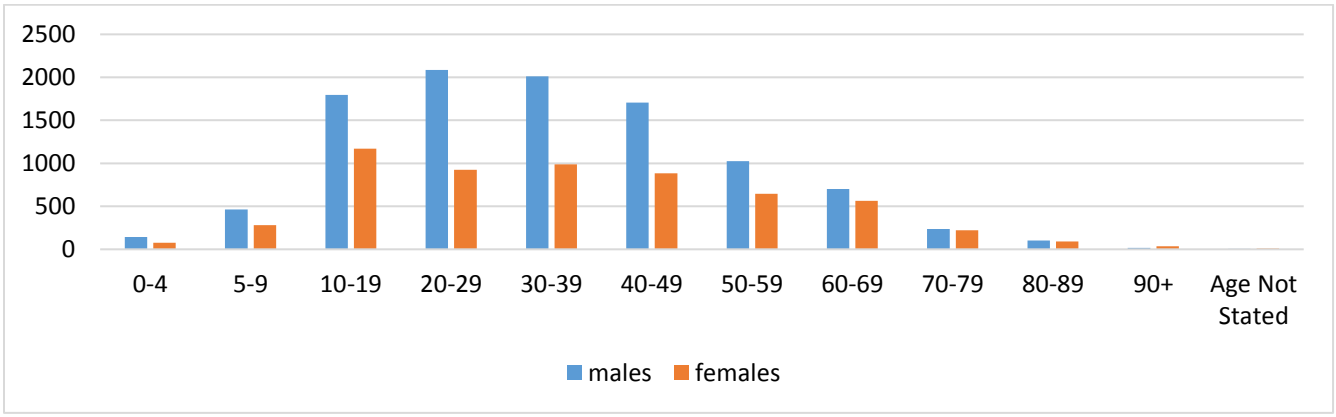

Figure 25: Mental illness distribution among males and females in Haryana

Figure 25. Haryana has a high criminal rate against women and the women do not possess power of decision making not only in matter of household but for themselves. health issues are ignored or due to lack of any male assistance remain untreated and unreported to any facility. So due to above reason though more females suffer yet the when compared in the same age group more male cases are seen.

4.4.9. HIMACHALPRADESH

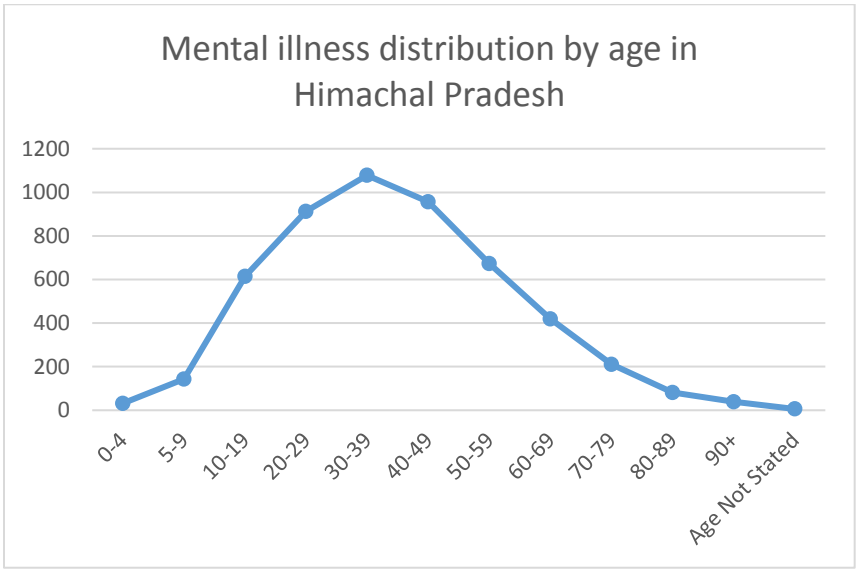

Figure 26: Mental illness distribution by age in Himachal Pradesh

Figure 26. Himachal Pradesh is a hilly area with a very small population but life is highly herculean there as only few cities are developed and no proper roadway making the basic amenities hard to be reached by the people. Therefore remote locations, severe climate conditions, lack of transport facilities and other infrastructure not only limit healthcare but also any industrial development. Much of the cases are seen in the age group of 30-39 years old which only accounts for round about 1000 mental illness cases. Even though cases are being reported but in Himachal Pradesh the restricted path becomes a hurdle for both diagnosis as well as treatment of mental cases.

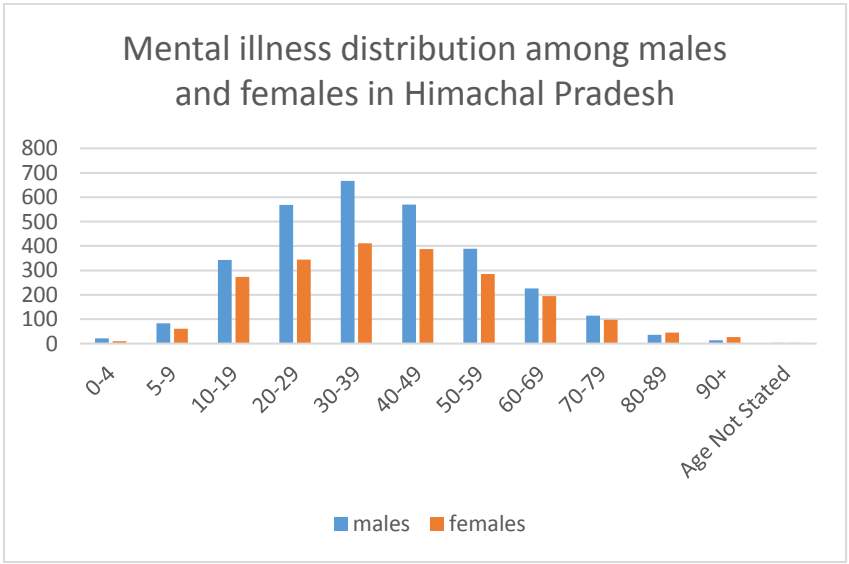

Figure 27: Mental illness distribution among males and females in Himachal Pradesh

Figure 27. Though more male mental illness cases are noticed then than female cases yet a confirm analysis is difficult to as the number of cases recorded are small. Yet Himachal Pradesh suffers from sex discrimination being the fifth lowest states in sex ratio 972/1000 males so more care and focus is give to health of males than females especially at the productive age groups.

4.4.10. JAMMU AND KASHMIR

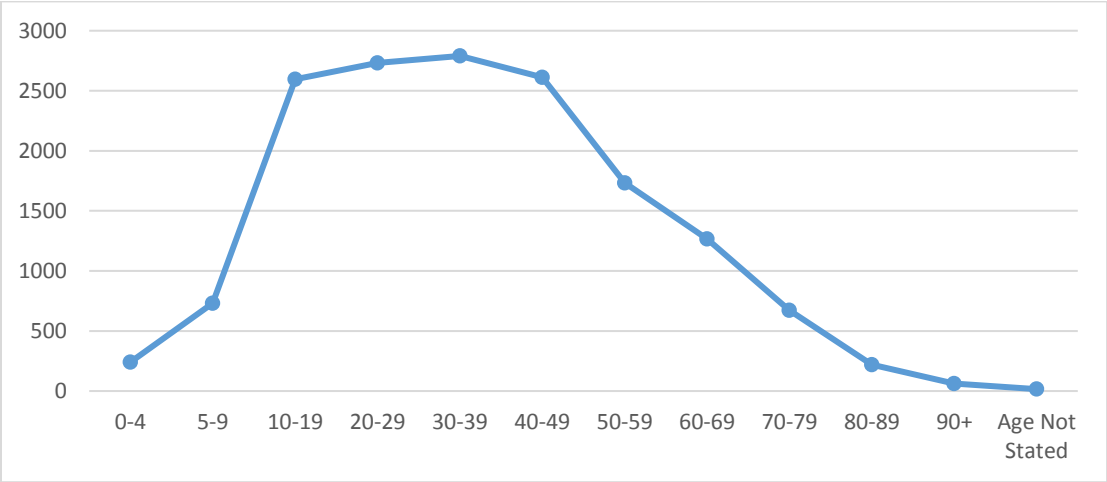

Figure 28: Mental illness distribution by age in Jammu and Kashmir

Figure 28. One of the reports suggests that over 11 per cent of the J&K suffers from mental health issues which is almost double than all-India average mental illness cases. A lot of cases are seen in the age groups 10-19, 20-29, 30-39 and 40-49 years old as the causes leading to the multiple health issues are like continuous violence from the border and within the state by terrorist, declining socio-economic conditions, anger issues against government system, worsening marital status and continuous traumatic events suffered by the families. From the age of 50 years old people in J&K suffer from mental illness yet the cases drop down as people comprise and become habitual to their unhealthy environment. After Kerala the percentage of mental illness cases relative to state population are reported by Jammu and Kashmir around 0.11 per cent. A serious action need to be taken by the government to handle these cases and further limit new cases.

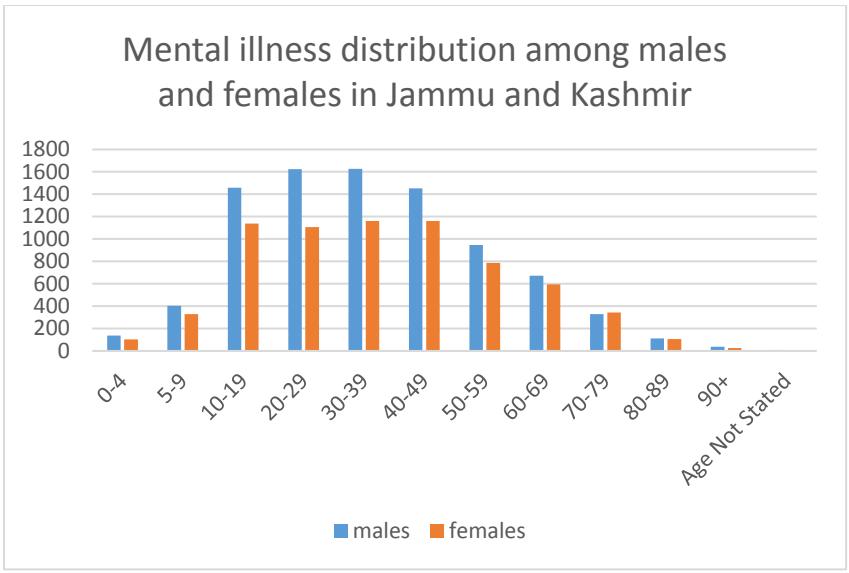

Figure 29: Mental illness distribution among males and females in Jammu and Kashmir

Figure 29. The graph illustrates the mental health cases are high among male population which maybe due to terrorism and unsafe environment faced by them while earning for the survival for themselves and their families. J&K is also pro male society, not only the education level in boys but also the health in boys is at higher level. The males even suffer higher from mental cases as they have the main role of breadwinners.

4.4.11. KERALA

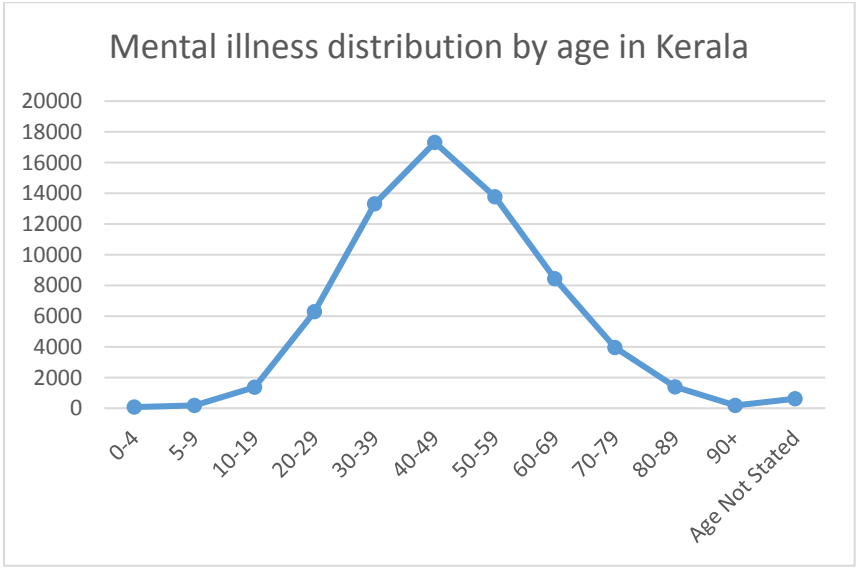

Figure 30: Mental illness distribution by age in Kerala

Figure 30. A proper bell shaped graph is seen while plotting mental illness distribution in Kerala. The peak of the graph is at the age group of 40-49 years old, 17308 cases in absolute count. Kerala stands to be the second in suicide rates even though it has highest literacy rate in India. Unemployment seems to play a major role in the mental health in case of this state. People are overqualified for their job which often leads to depression and other mental issues may be a reason to have mental illness from 30-59 years onwards. Along this people suffer from middle life crisis which may be considered in case of age group 40-49 years old. Caste system discrimination also plays a major role in mental health. Kerala has a excellent record system and is working on multiple mental health programs.

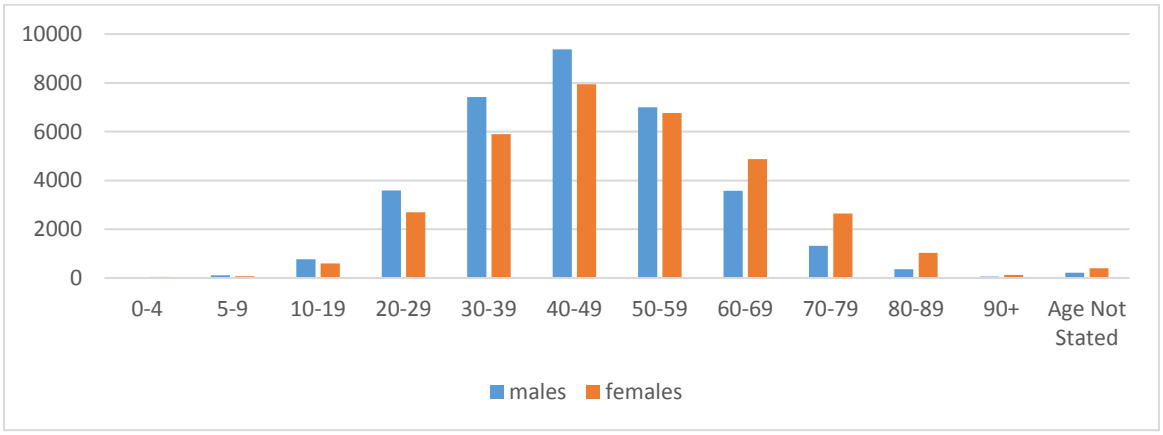

Figure 31: Mental illness distribution among males and females in Kerala

Figure 31. Kerala has high mental illness cases in males in the young adults and adults but from the 50 years onwards the female mental illness cases increase as the survival rate is high amongst females and from that age onwards they acts a role of elder family thereby not only adding additional pressure but they become an important member of the family whose health issues are needed to be addressed.

4.4.12. KARNATAKA

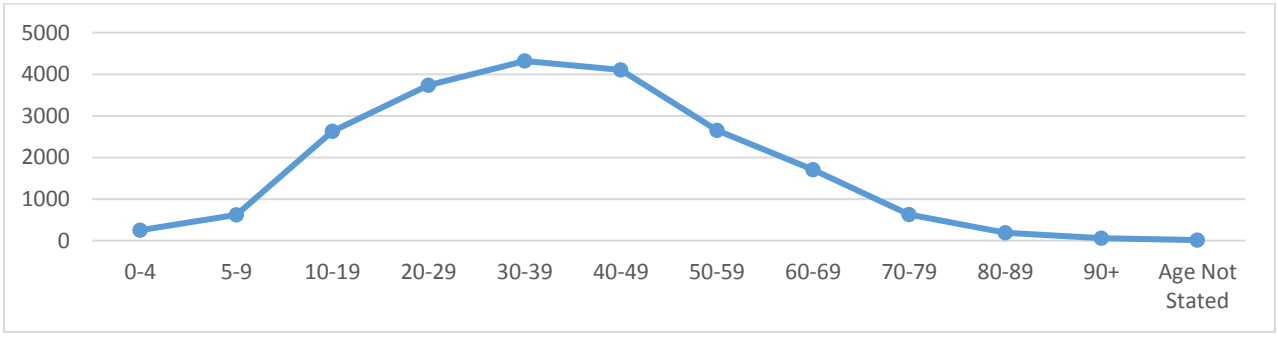

Figure 32: Mental illness distribution by age in Karnataka

Figure 32. As in India, the mental illness cases are high in the age group 30-39 years old, though 20-29 and 40-49 years old also have high cases. Karnataka has a strong caste system and has a high crime rate. The tribal people are affected a lot as they are considered the part of low caste

system. The productive age group (20-50 years old) suffers maximum from mental illness cases as they need for survival for themselves and their families and declining economy.

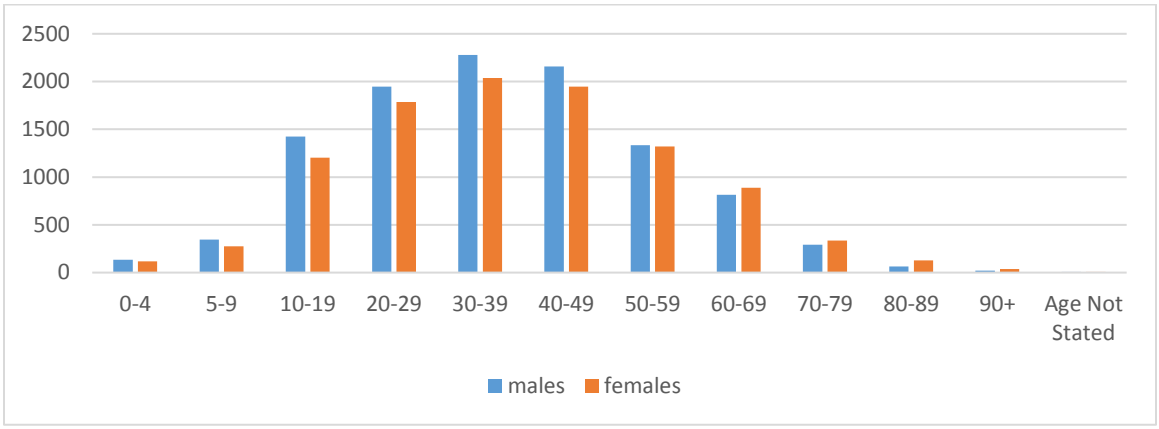

Figure 33: Mental illness distribution among males and females in Karnataka

Figure 33. Karnataka has almost equal number of mental illness cases in both males and females in all the age groups. Karnataka had the lowest percentage of mental illness cases per its total population so the actual situation is difficult to find but yet according to the graph almost equality is seen in both genders. Along with this mental health conditions are treated as the work of devil or karma and the person suffering mental illness is treated inhumanly and not as a medical condition so not reported for any medical assistance to any medical facility.

4.4.13. MADHYA PRADESH

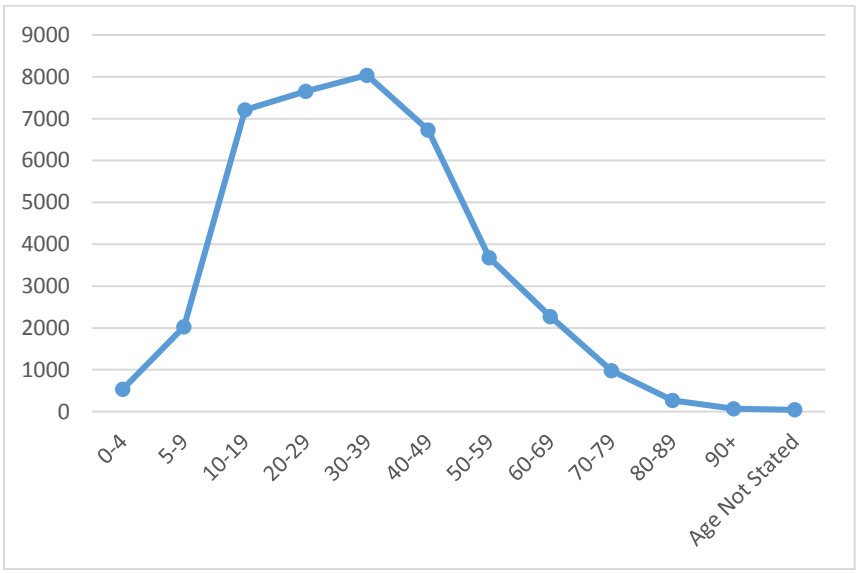

Figure 34: Mental illness distribution by age in Madhya Pradesh

Figure 34. Madhya Pradesh accounts for maximum number of suicides within last year and as the graph shows most of the mental illness cases lays among the age groups 10-19, 20-29, 30-39, 40-49 and 50-59 years old which belongs to the productive ages. Madhya Pradesh is an agrarian economy the maximum mental illness cases are among farmers and work labors, the distress in the state is due to crop failure of scanty rainfall, droughts or hailstorms that leads to damage of crops as they have no insurance burdening them further.

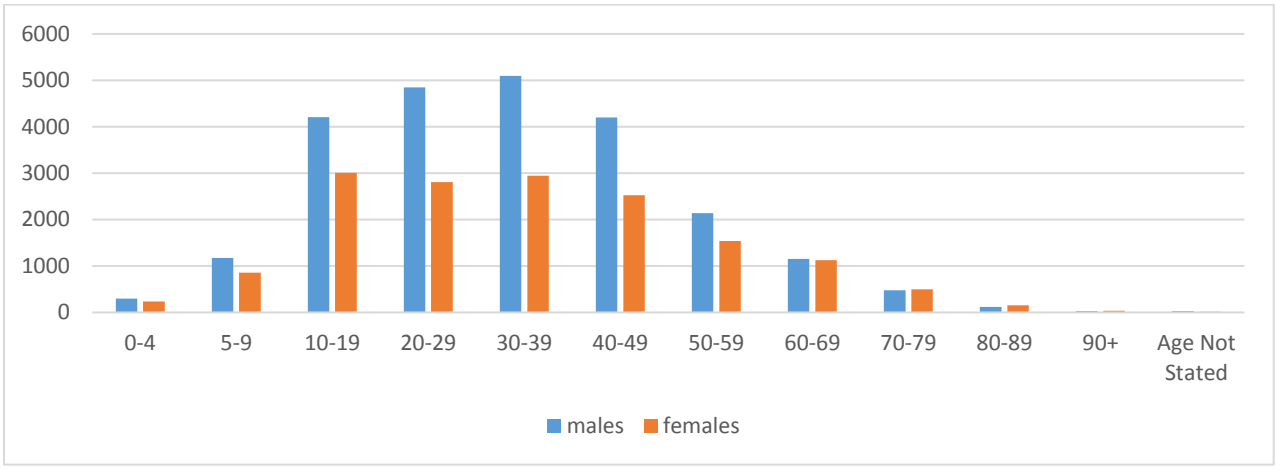

Figure 35: Mental illness distribution among males and females in Madhya Pradesh

Figure 35. In Madhya Pradesh more male mental illness are registered than female in almost all the age groups. In Madhya Pradesh maximum population is dependent on agriculture, and women play a major role as cultivators and mostly work as unpaid labourer in their own farm do a large quantum of work (like sowing, weeding, harvesting and maintenance of the harvest) which is more tedious than that of men who perform supportive task (like transportation and marketing). The women are busy in their farms and children and ignore their health at large including mental health as well.

4.4.14. MAHARASHTRA

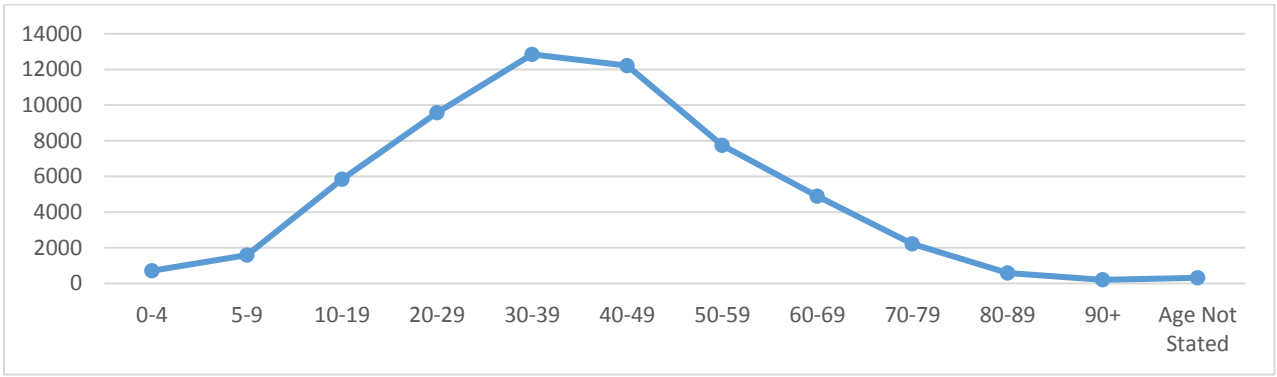

Figure 36: Mental illness distribution by age in Maharashtra

Figure 36. Graph shows that maximum number of mental illness cases in 30-39 and 40-49 years old having 12848 and 12218 absolute number of cases. Maharashtra show mental illness cases in adults and young adult as of high competitiveness in employment sector due to high population as it is the second populous state of India with high level of immigration.

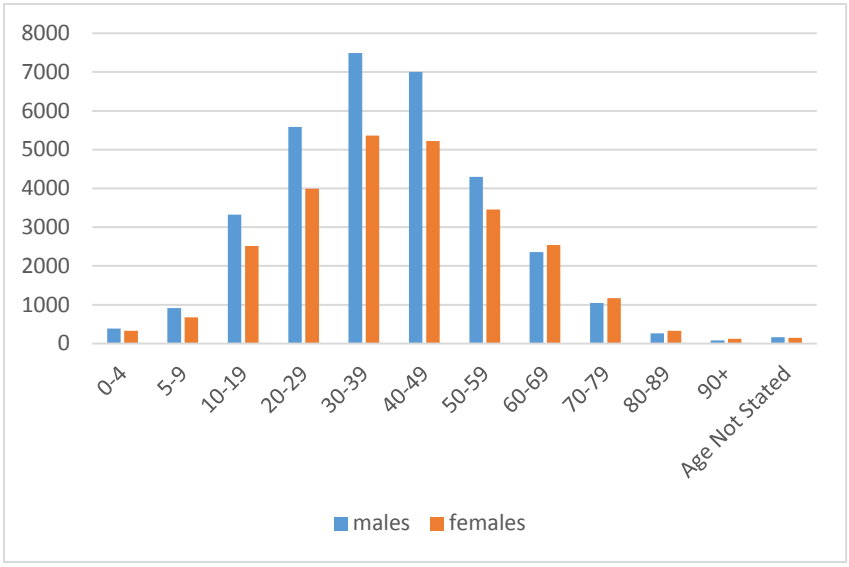

Figure 37: Mental illness distribution among males and females in Maharashtra

Figure 37. More male mental illness cases are recorded from age 10 to 59 years old than female cases due to work place pressures and agriculture pressure put on males for making it successful than females. More than 2000 mental illness cases are reported of males in age groups 20-29, 30-39 and 40-49 years old than females.

4.4.15. ODISHA

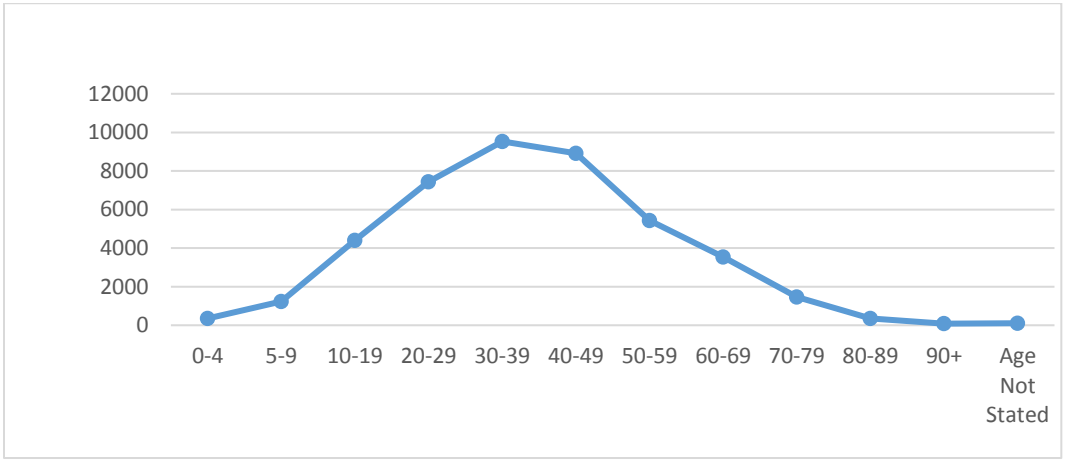

Figure 38: Mental illness distribution by age in Odisha

Figure 38. In Odisha also the maximum numbers of mental illness cases are seen in 30-39 years old but almost whole of the productive seems to be suffering from mental illness as because of the unemployment and lack of infrastructure for treatment of any mental health issues.

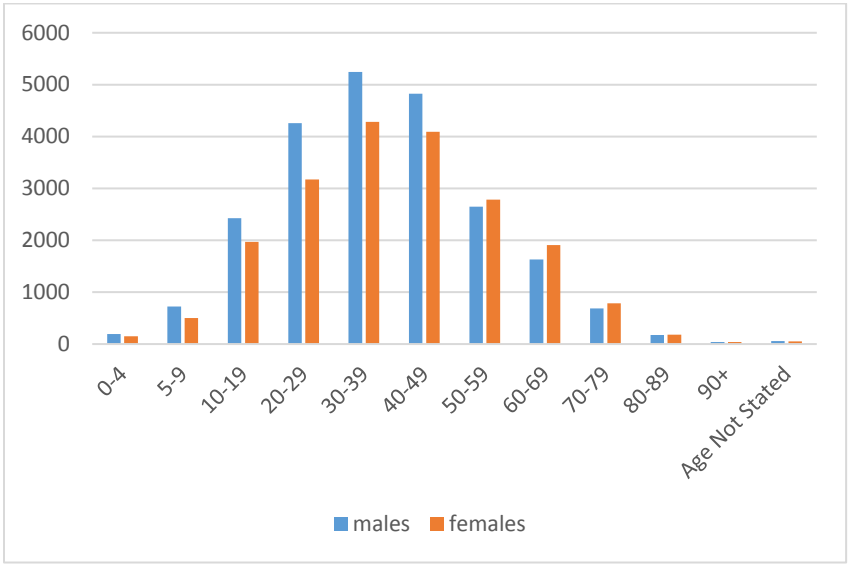

Figure 39: Mental illness distribution among males and females in Odisha

4.4.16. PUNJAB

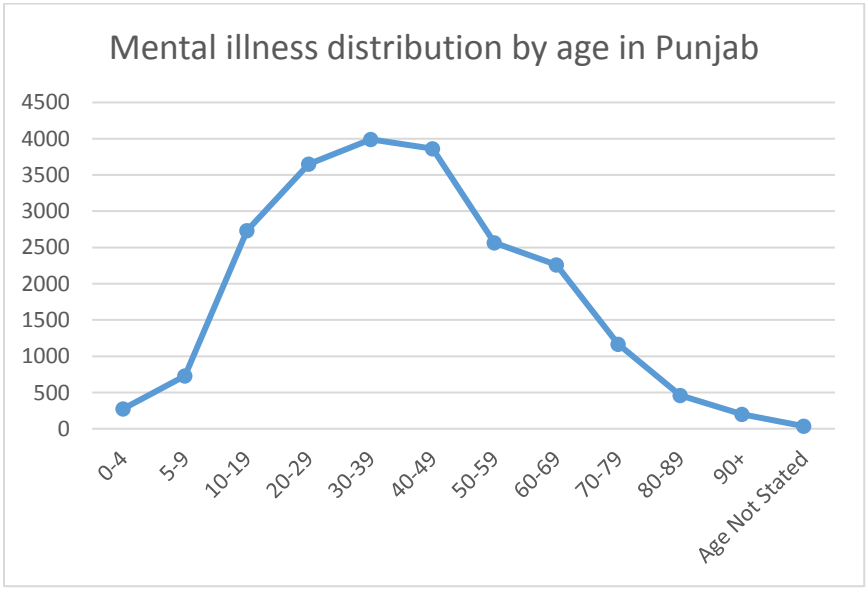

Figure 40: Mental illness distribution by age in Punjab

Figure 40. Graph illustrates that from the age 10 years onwards the cases of mental illness tends to increase till the age of 49 years old. Punjab is a highly prosperous state of India where agriculture is the main occupation of people and which suffers no droughts as the state has five rivers for agriculture. The mental illness sets up as the people face very high criminal rate and are bounded by very strong customs and traditions which often lead to harm of the society. But one of the main reasons for the mental illness is the drug abuse. Drug abuse has become a part of the life of the not only adults but also the adolescent too. Violence and anger amongst the society is also prominent and the intolerance in society against anything is very low leading to disruption of mental health among people.

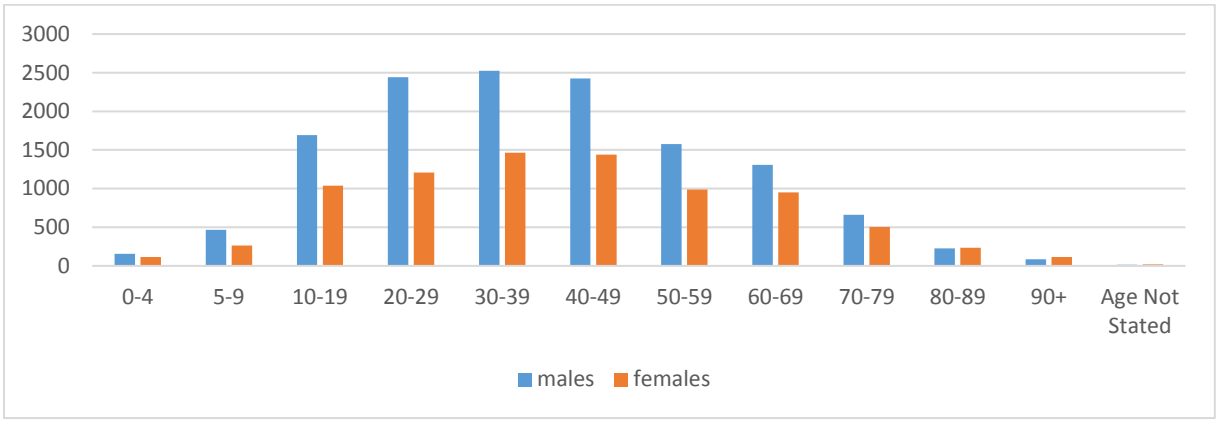

Figure 41: Mental illness distribution among males and females in Punjab

Figure. In Punjab almost double mental illness cases are seen in males from the age groups of 5-10 years old and it is a male dominant society with little concern for female health.

4.4.17. RAJASTHAN

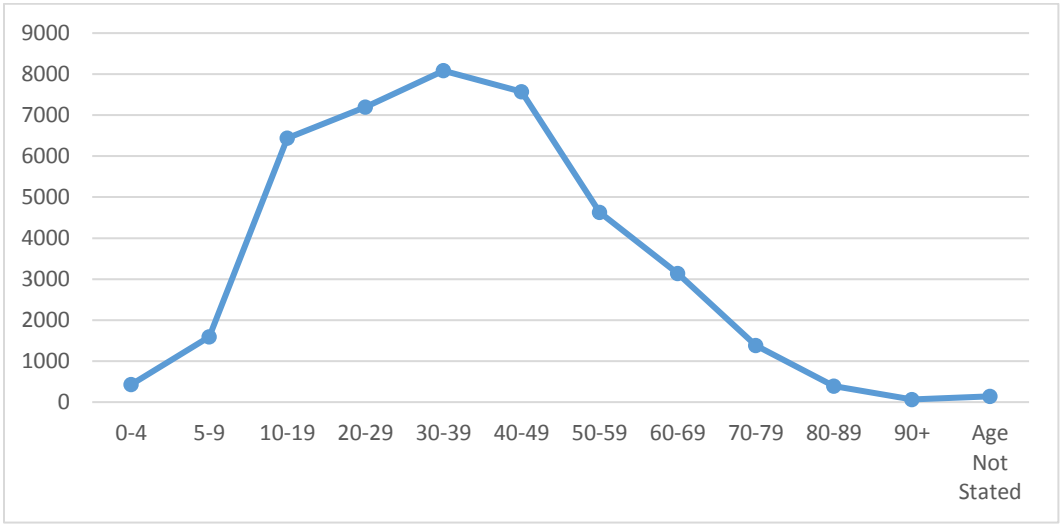

Figure 42: Mental illness distribution by age in Rajasthan

Figure 42. Graph shows that around 8000 mental illness cases in the age group of 30-39 years old that is most number of the cases reported in all age groups. Almost maximum of the productive age are suffering from mental health issues this maybe due to the strenuous lifestyle in Rajasthan as most of state lies in the desert belt and temperature often leads to 54C. Only few districts are developed cities other than that it belongs to rural and nomad people who have added pressure for their survival.

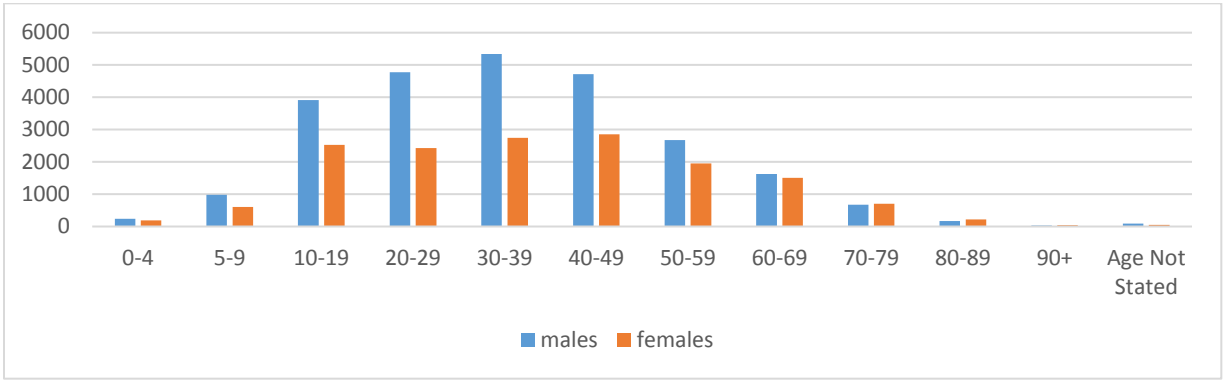

Figure 43: Mental illness distribution among males and females in Rajasthan

Figure 43. Almost in all the age groups from 0-4 years old to 50-59 years old the number of male mental illness are double than female mental illness cases. Rajasthan still suffers from female feticides, sex selective abortion, child marriage, pardah system and many more cruelties against women so their stress upon them should be more but as seen in bar graph this is not so. Rajasthan needs to work not only for infrastructure in assistance of mental health but also educate and communicate the people towards the concept of mental health.

4.4.18. TAMIL NADU

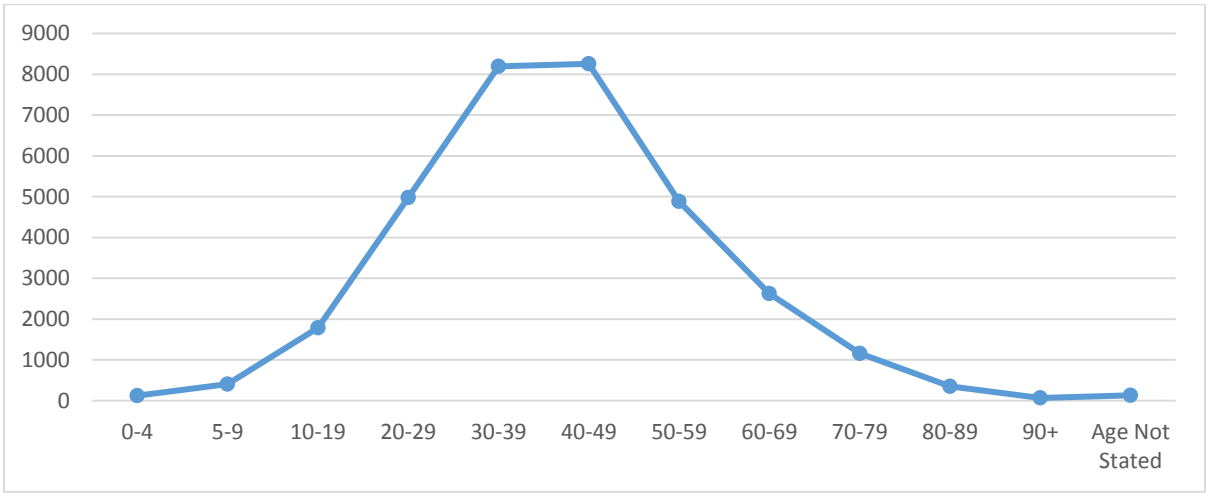

Figure 44: Mental illness distribution by age in Tamil Nadu

Figure 44. Tamil Nadu shows a different graph all together and doesn't resemble any other state graph. It shows two peak points in the age groups 30-39 and 40-49 years old which has around 8000 people suffering from mental illness. Though not much reason can be explained in case of Tamil Nadu except that the expert have an option that lack of awareness about mental health leads to stigma thereby increasing the problem. And due to lack of this awareness many people in Tamil Nadu according to Elavaraia, a 104 helpline Counselor are unable to differentiate between a psychiatrist demanding medication for minor problems and a psychologist. Though Tamil Nadu is ahead in terms of health care than other states yet it has a long path to go in concern of mental health care.

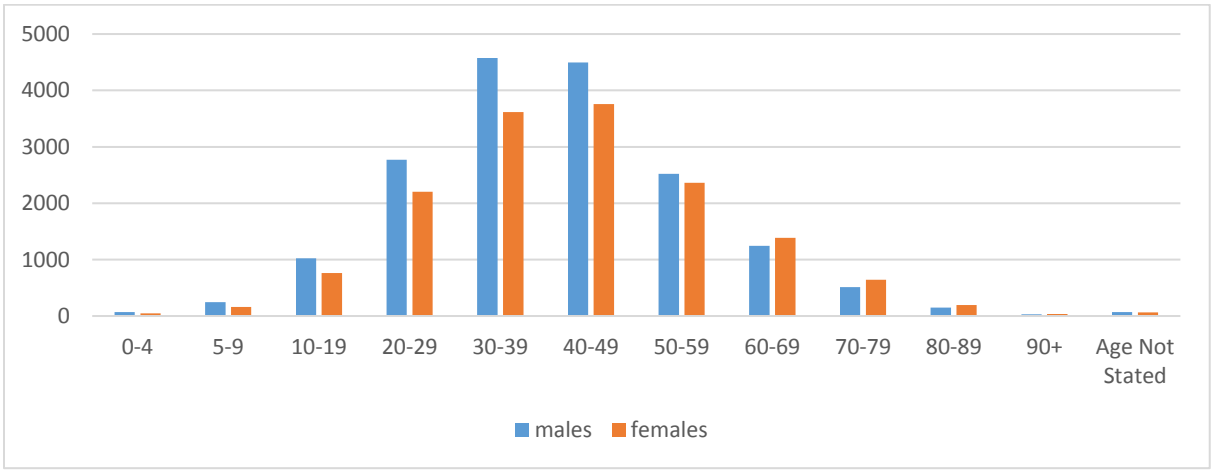

Figure 45: Mental illness distribution among males and females in Tamil Nadu

Figure. More number of male mental illness cases was recorded than female in Census 2011 in age groups 0-4 years old to 50-59 years old but then suddenly the cases are reduced in males from 60 years old onwards.

4.4.19. UTTAR PRADESH

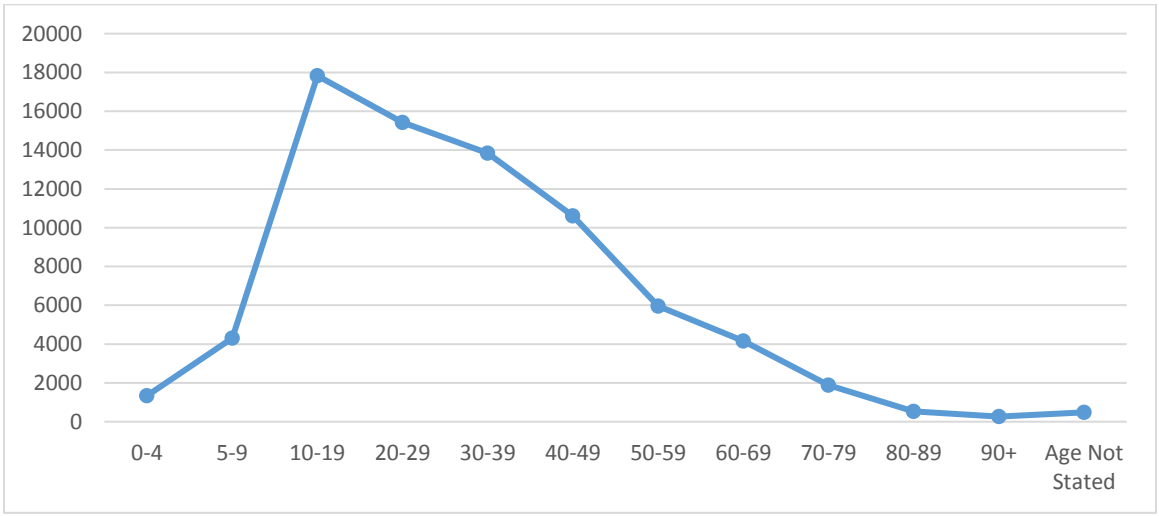

Figure 46: Mental illness distribution by age in Uttar Pradesh

Figure 46. Uttar Pradesh has the peak of mental illness in the age group of 10-19 years, the adolescents suffer high mental illness due to high pressure from school and bullying along with they even face issues like child marriage and child labour, even the literacy rate is very poor. Most families in Uttar Pradesh are below poverty line so the children suffer from hunger and underdevelopment. Around eighteen thousand mental illness cases were registered in this age group. Though the percentage of total mental illness cases to the population of Uttar Pradesh is very low just after Karnataka due to lack of infrastructure and manpower or simply because of a poor record system. Uttar Pradesh is the most populous of India, the people not only have to deal with the pressure of work but people also face high criminal rate and even corruption is high after Karnataka.

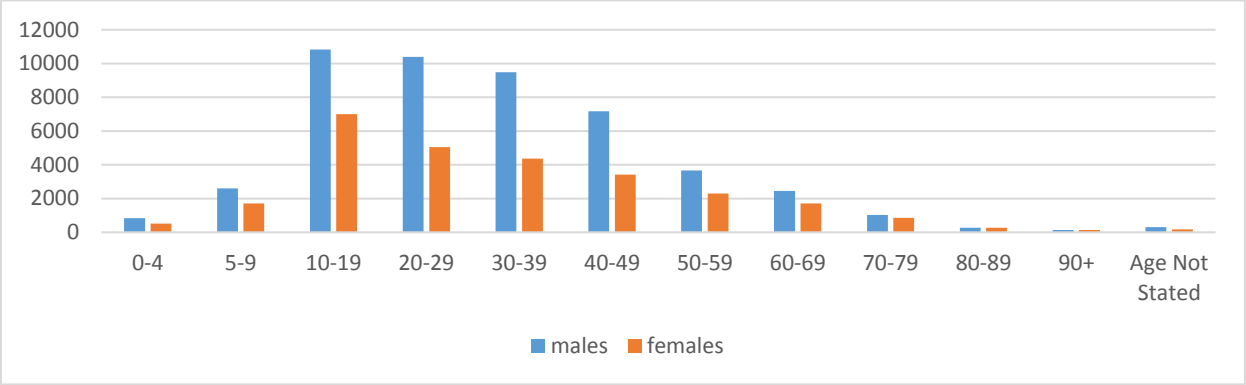

Figure 47: Mental illness distribution among males and females in Uttar Pradesh

Figure 47. Illustrates the more male mental cases are reported to the system than the female. The females mental illness cases are almost half in age groups 0-4 years old and 5-9 years, to some extend in 10-19 years old. But as the age increases the male mental illness cases become three times of female cases. This may be till the time period of 0 to 19 years the girl is at her parents' house and some care is given to her but after the age of 19 years onwards she gets married and her freedom of movement is restricted as well as her health comes secondary to her husband, and most household she is unable express her issues to any member of her new family.

4.4.20. WEST BENGAL

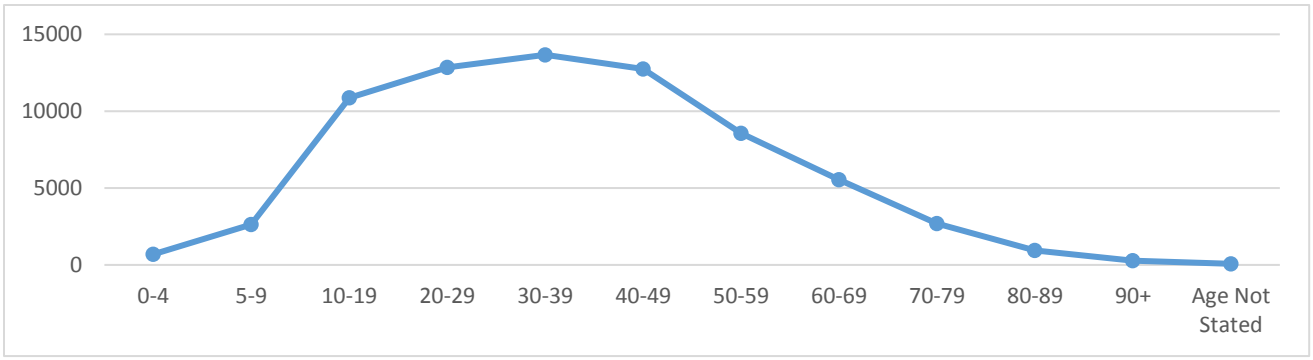

Figure 48: Mental illness distribution by age in West Bengal

Figure 48. The graph is similar to India with steep rise in the teenagers and the peak is at 30-39 years old. About 14000 to 12000 mental illness cases are seen in the age groups 20-29, 30-39 and 40-49 years old. In West Bengal most of the people live near the forest area, the Suderband forest and people occupation are agriculture and fishery but due the conflicts between human-wildlife is continuous the people in age groups that is going out and earning are affect more by the mental health issues. Along with this due to the high poverty level in West Bengal the 10-19 years old population are forced to work there deviating them from normal life of children leading to mental illness.

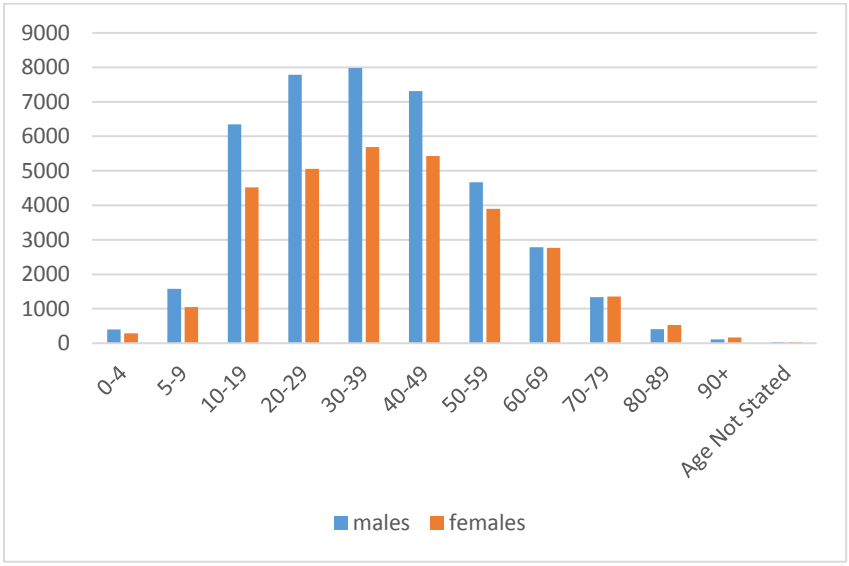

Figure 49: Mental illness distribution among males and females in West Bengal

Figure 49. In West Bengal only in 0-4 years old, 60-69 years old and 70-79 years old the mental illness cases in both males and females are almost equal but in the age lying between 0-4 and 60-69 years old the mental illness cases are more in males than in females. While at the elder age groups 80-89 and 90+ more female mental cases are visible which is as the survival rate is higher than in males.

5. CONCLUSION

Age group 30-39 years old seems to be maximum number of people affected by mental illness. Yet in all states there is high prevalence of mental illness in the productive age groups (15-50 years old). Not only this but in all the states the number of male mental illness cases than female that may be due multiple reason In many states of India a steep rise in mental illness cases is seen at 10-19 years old .

On viewing the data of individual states, many states have almost similar graph like India following a general trend but many states especially Bimaru states have a steep rise and even peak at 10-19 years old, even J&K follow the same pattern. But like Chhattisgarh and Karnataka have multiple peaks in the age groups of 20-29 and 40-49 years old. Kerala also maximum number of people affected in the age group of 40-49 years.

6. RECOMMENDATIONS

Since all the states are facing the same problem in regards of mental health, the states should not only build the essential infrastructure and provide the required manpower but they should start programmes that can be processed in the schools by the school teacher, where not only she/he recognizes the student with mental health issue but also can counsel him/her. Since it has been analyzed that most of the states the mental illness cases suddenly increase in the adolescent, they should be taught how to deal with stress and are able communicate weather the adolescent is going to the school or not. They should be given a safe environment for their growth. On working with the present generation they will not develop into serious mental issues and the earlier the better works here in mental health too.

One other thing that can be done is providing awareness not only to the educated but to the uneducated too. This can be done with the help of cinema, which is a common media for entertainment for all masses.

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