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INVESTIGATING THE GENDER DIFFERENTIALS OF MENTALLY ILL PERSONS AT ANKAFUL PSYCHIATRIC HOSPITAL, GHANA.

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Abstract

The study is an attempt to find out which gender group is more vulnerable to mental illness, and also make recommendations based on the results. Secondary data comprising yearly numbers of males and females who reported of mental problems at Ankaful Psychiatric Hospital from 2006 to 2013 was obtained from the Biostatistics unit of the hospital. The data was analysed using Microsoft Excel and MINITAB 15. Tables and graphs, chi-square test for independence, goodness-of-fit test for uniform distribution, and paired t-test were the statistical tools used to achieve the objectives for the study. From the analysis, it was found that new attendance of psychiatric patients to the hospital over the years is not uniformly distributed. Also, there is a significant difference between the numbers of male psychiatric patients and female psychiatric patients, and that male psychiatric patients are significantly more than the females over the years. Again, the yearly gender records (that is, the numbers of males and of females) depends on the years in which the records are made.

Keywords: psychiatry, mental illness, gender differential, depression, stress.

1. INTRODUCTION

The American Psychiatric Association (2000) defines a mental disorder as "a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g., a painful syndrome) or disability or with a significantly increased risk of suffering death,

Conceptions of madness in the middle Ages in Christian Europe were a mixture of the divine, diabolical, magical and humeral, as well as more down to earth considerations. In the early modern period, some people with mental disorders might have been victims of the witch-hunts but were increasingly admitted to local workhouses and jails or sometimes to private madhouses. Many terms for mental disorder that found their way into everyday use first became popular in the 16th and 17th centuries. Later, Aristotle (322-382 BC) attempted to relate mental disorder to physical disorders and developed his theory, the amounts of blood, water, and yellow and black bile in the body controlled the emotions. These four substances corresponded with happiness, calmness, anger, and sadness. Imbalances of the four humors were believed to cause mental disorder.

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Factors contributing to mental illness can be viewed within individual, interpersonal, and socio-cultural categories. Individual factors include biologic makeup, anxiety, worries and fears, a sense of disharmony in life, and a loss of meaning in one's life (Seaward, 1997). Interpersonal factors include ineffective communication, excessive dependency or withdrawal from relationships, and loss of emotional control. Socio-cultural factors include lack of resources, violence, loneliness, poverty, and discrimination such as racism, classism, ageism, and sexism (Baly, 1982).

According to the World Health Organization (WHO), there are many mental disorders which are classified under ten broad groups. Some of these are disease of the brain, disorders related to the use of mind-altering (psychoactive) drugs such as alcohol, cocaine, heroin, marijuana (wee) and sleeping tablets. Other mental challenges include issues associated with abnormal beliefs and the loss of control of mood when the individual may not have the ability to feel pleasure, referred to as depression. Women often have different outcomes and experiences with mental illness compared to men. However, there is still a 'gender-blind' approach to the understanding and development of new treatments for mental illness. Utilizing gender differences in the onset, course and outcomes of mental illness may enable a better development of best outcomes for the treatment of mental illness. Women's mental health is determined by a complex interplay of several biological, social, and cultural factors. Women are more prone to several mental health problems because of their lower status in society and the impact of stressors that are often gendered, including poverty, violence, and poor physical health. Depression, posttraumatic stress disorders, and eating disorders are much more common in women than in men. Conditions such as schizophrenia, anxiety disorders, and substance use disorders, though not more common in women, have specific clinical and long-term implications among women. Sexual trauma and intimate partner violence are other important determinants of mental health problems in women.

Legal backing to mental health in Ghana started with the enactment of the Lunatic Asylum Ordinance in 1888 signed by the Governor of Gold Coast, Sir Griffith Edwards. Before this period, the mentally ill were found to be roaming in towns, villages, bushes, and some locked up either in their homes or restrained by native doctors. With the enactment of the Ordinance, those who were found to be mentally ill labeled "insane", arrested and put in a special prison in the capital Accra. By the 20th century, this prison had become full and therefore a facility named "The Lunatic Asylum", presently known as the Accra Psychiatric hospital was built in 1906. Currently, there are three psychiatric hospitals in Ghana, namely; Accra Psychiatric hospital built in 1906, Ankaful Psychiatric hospital built in 1965 in the central region of Ghana, and the Pantang hospital which was hurriedly commissioned in 1975 to decongest the Accra Psychiatric hospital.

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1.2 Justification for the Study

Studying to understand gender issues is very important in developing countries like Ghana. In Ghana a whole ministry has been set up to deal with gender issues, and so gender differentials of anything concerning health of the citizens is very important here. This study will therefore go a long way to inform the society and the government, particularly the Ministry of Health of the relationship that may exist between gender and mental illness in the country so as to device mechanisms and strategies aimed at reducing mental health issues in connection with gender. Moreover, it will highlight the gender group that is more affected by mental illness and thus help to direct much attention to such gender group.

1.3 Purpose of the Study

It is worth noting that mental illness has devastating impact on the individual, family, society, and the nation as a whole. Women throughout history have been considered the weaker sex. They are commonly believed to be more susceptible to emotional breakdowns and mental illness as they are deemed to be not as psychologically durable as men. Are women truly a weaker sex mentally, or do we perceive them this way because of patriarchal society and existing stereotypes? Males and females alike suffer from mental illness irrespective of one's religious or social status. The perception that a specific gender group (females) is more prone to mental illness is widespread. The problem to be investigated is to determine some dimensions or trends of mental illness with respect to sex of individuals.

1.4 Research Questions

This study is aimed at finding answers to the following questions:

i. Is there any relationship between gender and years of records of mental illness?
ii. Is there a significant difference between the recorded male and female psychiatric cases?
iii. Which sex, (females or males) is generally more at risk of mental illness?

2. LITERATURE REVIEW

The literature review has been captured in two areas: 'women and mental illness' and 'men and mental illness'

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Women and Mental Illness

According to Rosefield, (1999) gender is associated with certain mental disorders, including depression, anxiety and somatic complaints. Women tend to develop internalised symptoms, where problematic feelings are directed towards the self. In accordance with the internalised-externalised dichotomy, women are more commonly diagnosed with mental illnesses such as anxiety, depression, phobias, and borderline personality disorder. In today's society, about 12.4 million women suffer from depression, as compared to 6.4 million men, and yet most reasons given for depressions are lumped together, regardless of sex. Although, depression is generalized as the response to a non-tangible loss (Chesler 82), female depression differs greatly from male depression. Women who suffer from depression are often focused on the meaning of their lives and the importance that they place in themselves. They become depressed about their role in their marriage or inability to find a worthwhile career. There is also emphasis on "low social status, legal, and economic discrimination of women, role expectations, which results in a state of learned helplessness". Women fall victim to depression because they are unable to achieve mastery by direct action and self-assertation. They thus suffer from role restriction and lack of fulfillment. Suicide rates are steadily increasing in today's society. While men commit suicide four times more than women, women attempt it three times as often. Suicide among women is most commonly associated with placement in life and is an act of resignation and hopelessness as the largest groups of Americans who attempt suicide are housewives (Chesler, 2005). These women often feel alienated from society and believe their lives serve no significant purpose.

Before the mid-eighteen hundreds, common belief was that those who suffered from mental illness suffered because they had a "disease of the soul" (Goldberg, 1992).Women during this time were deemed to be highly susceptible to becoming mentally ill as they did not have the mental capacity of men, and this risk grew greatly if the woman attempted to better herself through education or too many activities. In fact, women were seen as most likely having a mental breakdown sometime during their life as "the maintenance of [female] sanity was seen as the preservation of brain stability in the face of overwhelming physical odds" Thus, women often suppressed their feelings, as to not appear mad and reassumed the passive, housewife role.There are no marked gender differences in the diagnosis rates of serious psychological disorders like schizophrenia and bipolar disorder. Freud postulated that women were more prone to neurosis because women suffered from aggression towards the self, stemming from developmental issues. Freud's postulation is countered by the idea that societal factors may play a major role in the development of mental illness. Industrialization exacerbated the divide between work and home, pushing women further into the private sphere and men into the public sphere. This may have had important ramifications on gender roles and, in turn, the kind of mental illnesses that occurred most often in men vs. women. When certain factors, such as work outside the domestic sphere, are controlled, women and men tend towards a fuller range of mental illnesses at approximately equal rates. In some cases when such factors were controlled, women showed

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lower rates of mental illness on the whole. The object relations theory postulates that because women are mostly responsible for parenting, mothers emphasize the importance of relationships to their daughters while pushing their sons into independence. Rosefield uses this theory to argue that males and females develop different kinds of symptoms when they are mentally ill.

Although women constitute over half the general population and almost two-thirds of the psychiatric patient population, many studies of mental illness do not report women's data separately and many do not include women. Similarly, information about or pertinent to women at risk of HIV infection has been concealed within study data or neglected all together. Although the lack of information about the sexual and drug-using behaviors of people with serious mental illness at first impeded the development of appropriate AIDS prevention efforts, it is now widely assumed that people living with mental illness may engage in "sexual risk behavior" because of "their inability to evaluate appropriately their HIV risk". In spite of this knowledge, and the knowledge that women are more biologically at risk for HIV infection than men, the HIV prevention needs of women have gone largely unconsidered. There is a great need to develop comprehensive and appropriate HIV prevention and sexual health promotion strategies and programs with and for women living with mental illness. Andrew(2001) stated that understanding the mental health needs of lesbian and bisexual (sexual minority) women is an integral part of designing and providing appropriate mental health services and treatment for them. In an effort to understand the mental health needs of sexual minority women who seek community treatment, a chart review was conducted of the 223 lesbian and bisexual women who presented for services between July 1, 1997 and December 31, 2000 at Fenway Community Health in Boston, MA. Data was based on clients' self-reports and clinician assessments of clients' presenting problem, relevant developmental history, prior mental health and substance abuse treatment, current reports of emotional/ psychological symptoms, and areas of impaired functioning. Although substance abuse and suicidal ideation were commonly reported problems, other concerns were more frequently reported. High percentages of lesbians and bisexual women reported relationship concerns and lack of adequate social networks; rates of depression and anxiety based on clinicians' assessments were also high. Overall, lesbians and bisexual women did not differ in the issues they brought to treatment or level or types of impairment. Compared with previous community survey samples, however, study participants appeared to be healthier than general, non-clinical samples of self-identified lesbians, possibly reflecting the special characteristics of sexual minority women who seek treatment in specialised community sites such as the Fenway. Although patients who come to these sites may not represent the more general population of sexual minority women, community health centers known to serve lesbian, gay, bisexual and transgender (LGBT) individuals may be fruitful access points for studying the mental health status and treatment needs of sexual minority women (Bradford and Rogers, ,2002).

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Research has reported that women are more vulnerable than men to stressful events and use different strategies to cope with them. Furthermore, it is often asserted that these gender-based differences in coping may partially explain the differential impact of stressful events on men and women (Gray, 2003). "Major institutions, such as the workplace and the family, shape social roles and experiences. Stratified by gender, these institutions produce different stresses for males and females and differential access to social and personal resources. Furthermore, such gender inequalities are reproduced through differential socialization of males and females. Childhood socialization shapes core dimensions of the self that are consistent with adult social roles and positions. These socialisation processes combine with adult experiences to produce different types of mental disorders in males and females throughout the life course."(Rosefield, 2003).

Men and Mental Illness

Around the world studies, surveys, web networks, journals are shedding light on a shadowy subject: men and mental illness. Among the findings is the revelation that new fathers are also vulnerable to postpartum depression. In Canada, young and middle-aged men are being hospitalised for schizophrenia in increasing numbers. The gender gap among people with mental illness is much narrower than might be suspected. The StatsCan Canadian Community Health Survey (2011) on mental health and well-being found that 10% of men experienced symptoms of the surveyed mental health disorders and substance dependencies compared to 11% of women. In the United Kingdom (UK), studies of depression show a major shift in the traditional gender imbalance, with depression rising among men and decreasing among women. The greatest evidence of male vulnerability is in suicide statistics. Among Canadians of all ages, four of every five suicides are male. In the UK, men are around three times more likely to kill themselves than women. In South Wales, Australia, suicide has overtaken car accidents as the leading cause of death in males since 1991. It is estimated that up to 6million American men have depression each year-about half the figure of women. In focus groups conducted by researchers indicated that men described their own symptoms of depression without realizing they were depressed. No connection between mental illness and physical symptoms; sadness, headache, digestive problem, and chronic pain were made. Men's focus on competition and feeling powerful can be adversely affected by unemployment and the presence of women in the workplace.

"Men display externalized symptoms, expressing problematic emotions in outward behavior. The lifetime prevalence rate of alcohol dependence is more than twice as high in men, and men are more than three times as likely to be diagnosed with antisocial personality disorder. Men more commonly experience substance abuse, antisocial disorders, and violence. Both men and women are more likely to be institutionalised if their diagnosis is not typical of their gender". When considering gender and mental illness, one must look to both biology and social/cultural factors to explain areas in which men and women develop different mental illnesses. Women exceed

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men in the hospitalisation rates of mental illness. In Finland sex differences are largest in the southern, most developed provinces (Haavio-Mannila, 1967). Learned behaviour also comes into play; men and women learn different ways to channel their emotions and thus develop different emotional frustrations and ways of expressing these frustrations. Epidemiological surveys have consistently documented significantly higher rates of anxiety and mood disorders among women than men, and significantly higher rates of externalizing and substance use disorders among men than women. Although a number of biological, psychosocial, and bio psychosocial hypotheses have been proposed to account for these patterns, evidence that gender differences in depression and substance use have narrowed in a number of countries has led to a special interest in the "gender roles" hypothesis. The latter asserts that gender differences in the prevalence of mental disorders are due to differences in the typical stressors, coping resources, and opportunity structures for expressing psychological distress made available differentially to women and men in different countries at different point in history. Consistent with this hypothesis, evidence of decreasing gender differences in depression and substance use has been found largely in countries where the roles of women have improved in terms of opportunities for employment, access to birth control, and other indicators of increasing gender role equality, while trend studies in countries where gender roles have been more static over periods of historical time when gender role changes have been small have failed to document a reduction in gender differences in depression or substance use. According to a World Health Organisation report, Statistical returns to the Accra Psychiatric hospital from Jan. to Dec. 2002 indicates that more males are admitted than females. This is due to a number of factors such as Females are over-represented at spiritual and healing centers than males. Also, one of the major reasons is the presence of aggressive behavior which is more prevalent among male patients.

3. RESEARCH METHODOLOGY

This section deals with the techniques used in sorting and analyzing the data collected and therefore includes the method of data collection, statistical tool for analyzing the data.

A secondary data was collected from the Biostatistics department of the Ankaful Psychiatric Hospital in the Central Region of Ghana. The data were used to assess the cases of mental illness with respect to gender over the years. Therefore, data are made up of male and female recorded mental cases from 2006 to 2013, thus eight-year record was made available for the study. Tables and charts (simple and multiple bar charts) were found very appropriate to summarise and help reveal the features of the data during preliminary analyses. Further analyses were also made by employing the use of chi-square test for independence, goodness-of-fit test (for uniform distribution), and paired t-test

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4. RESULTS AND DISCUSSIONS

Table 1 shows the number of mental patients who reported to the Ankaful Psychiatric Hospital from the year 2006 to 2013. It is observed that the recorded numbers seem to be close to each other, thus appearing to follow the uniform distribution. The differences, as compared to the values in the yearly records seem not much significant, though Figure 1 somehow exposes some defenses.

Table 1: Distribution of Reported Mental Cases at Ankaful Psychiatric Hospital by Year

Year	Number of Mental Cases Recorded
2006	2589
2007	2421
2008	2471
2009	2035
2010	2001
2011	2452
2012	2505
2013	1589

***Source**: Ankaful Psychiatric Hospital*

Among, the years chosen for the study, 2006 recorded the highest number of mental patients with 2,589 patients, followed by 2012 with 2,505 patients, whereas 2013 recorded the lowest number with 1,589. In general, from Figure 1, the numbers recorded over the years appear to be decreasing, giving the impression that mental health of the people is improving. The disappointment came in when the year 2011 and 2012 records were made available.

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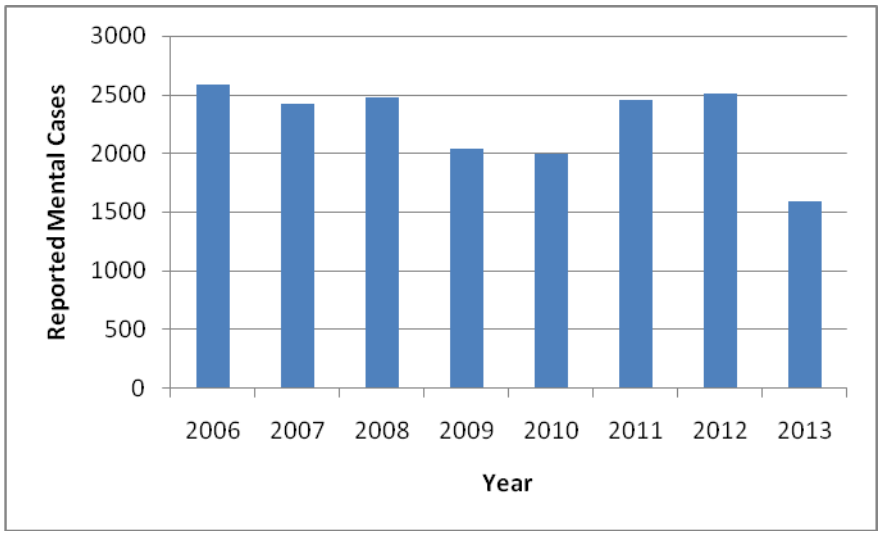

Figure1: Distribution of Reported Mental Cases at Ankaful Psychiatric Hospital by Year

Table 2 shows the yearly distribution of psychiatric cases recorded over the eight years of study by gender. Figure 2 is also a multiple bar chart resulted from the data in Table 1. Looking at both Table 2 and Figure 2, one should not find it difficult to suspect that males are more proned to mental illness than females, and this appears surprising from people's general perception, even though it confirms the revelation by the long time statistical returns from the Accra Psychiatric Hospital by WHO in 2002, as in the literature.Again, though males were generally recorded to be more than females over the years, the differences are more pronounced in some years than others.

Table 2: Distribution of Mental Cases by Gender from 2006-2013

Years	Number of Cases		Percentage of Cases	
	Males	Females	Males	Females
2006	1423	1166	54.9	45.1
2007	1357	1064	56.1	43.9
2008	1364	1107	55.2	44.8
2009	1171	864	57.5	42.5
2010	1146	855	57.3	42.7
2011	1467	985	59.8	40.2
2012	1514	991	60.4	39.6

***Source**: Ankaful Psychiatric Hospital*

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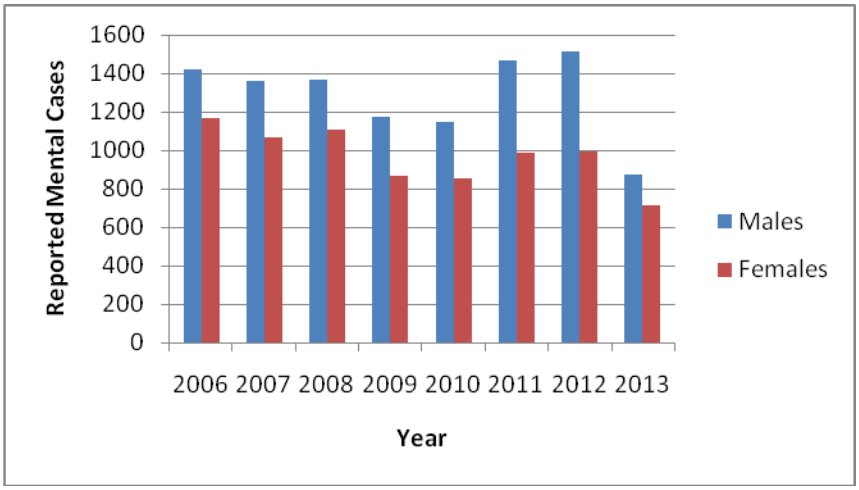

Figure 2: Gender Distribution of Yearly Reported Mental Cases at Ankaful Psychiatric Hospital

In order to be certain on the revelations in the preliminary analysis, and therefore be able to draw conclusions with allowable error margin, a Chi-square test for independence is carried out to find out answer to research question one.

The Chi-Square Test for Independence

Here, we try to find out whether there is any relationship between gender of the psychiatric patients and the years in which they reported to the hospital. In other words we try to answer the question "were more males or more females recorded in the hospital because we are in a particular year? Or any number can be recorded in any year. The Chi-square test for independence was conducted on the data in Table 2, using MINITAB 15, and the Chi-square value was obtained as 31.117 which is more than the critical value of 14.067 at 0.05 level of significance. We therefore conclude here that gender of the patients recorded depended on the years in which the patients reported at the hospital.

This really confirms the observed differences in the years with respect to the numbers of males and females psychiatric patients recorded in the hospital. This must be a problem worth for investigation, since it probably suggests that differences in gender of psychiatric patients recorded at the hospital vary with time. Replication of this research work in the other psychiatric hospitals may give a clearer view of the problem. If the revelations are similar to the case at Ankaful Psychiatric Hospital, then the pattern of mental illness with time would be a major concern, and be a good platform for further work done.

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Goodness-of-Fit Test for Uniform Distribution

Again, is it true as we earlier said, that the recorded numbers of patients were close to each other, thus suspecting a uniform distribution? A goodness-of-fit test for a uniform distribution was applied to Table 1 to answer that question. This test revealed a Chi-square value of 373.574 for the test statistic, which is far more than the critical value of 14.067, meaning at 0.05 significant level, the distribution of numbers of psychiatric patients recorded over the years does not follow the uniform distribution. This does not support the suspicion in the preliminary analyses that records are similar over the years.

Paired t-test

Now, the main question, is which sex is more prone to mental illness. To answer this question, the directional paired t-test was employed to find out first if there is a significant difference between the means of the recorded numbers for the males and females.

From the test, the t-statistic was 7.545, and this is greater than the critical value of 1.895, which implies that at 0.05 level of significance, there is a significance difference between the males and the females who reported to the Ankaful Psychiatric Hospital. And in conclusion, as we directed this paired t-test, the males were more recoded than the females. This result is not different from that of the World Health Organisation revealed in the 2002 report (see the literature). Many factors may be responsible for this particular results. For example, drug addiction which we know to be pronounced in males than females may be a factor. Again, the rowdy nature of most mentally ill males compel their family members or even the society to drag them to the Psychiatric hospitals. Other factors may be included.

5. CONCLUSION

From the results and discussions in Section 4 above, the following conclusions can be drawn, and the research questions in Subsection 1.4 shall be answered:

Generally, the analyses provides much confidence to conclude that males are more affected by mental illness than females. Moreover, the Ankaful Psychiatric Hospital has been recording irregular numbers of mental cases over the years. Thus the distribution of recorded psychiatric cases is not uniform. Again, gender of the patients depends on the year he or she reports at the hospital. Moreover, a significant difference exists between male psychiatric cases and female cases recorded over the years. Last but not least, the male psychiatric patients have been outnumbering the female counterparts over the years

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6. RECOMMENDATIONS

The suggestions here are made with the outcomes of the study in mind. They are mainly related to the measures that should be taken to reduce mental illness.

i. The health sector should implement effective mechanisms such as public awareness on the causes of mental illness and how to avoid them. The youths, particularly the males, should be educated on the possible symptoms and triggers of mental illness and where and how to seek early medical assistance.

ii. The Binomial or Poison distribution may be fit to the psychiatric cases data by future researchers who may wish to continue the work in this area, to check its distribution.

iii. Future researchers may try to identify why males are more prone to mental illness than females.

iv. Future researchers in this area may also focus on the age group that is most likely prone to mental illness.

v. The raw secondary data on mental illness shows certain categories of the illness. Researchers may look at the gender type, which is vulnerable to these categories.

vi. Future researchers may replicate this work in another psychiatric hospital to find out any differences in the findings.

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