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Submitted by

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A SURVEY OF MENTAL DISORDERS IN THE HOSPITALS AND CLINICS OF BANGLADESH

A Dissertation

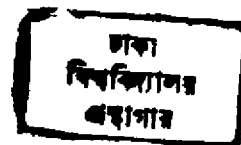
**Submitted to the Department of Clinical Psychology, University of
Dhaka, in partial fulfillment of the requirements for the Degree of
Master of Philosophy in Clinical Psychology.**



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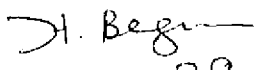
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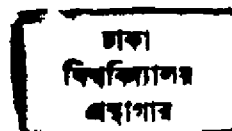
APPROVAL SHEET

This is to certify that I have read the thesis entitled “A SURVEY OF MENTAL DISORDERS IN THE HOSPITALS AND CLINICS OF BANGLADESH” submitted by Nadira Shammi, in partial fulfillment of the requirements for the degree of Master of Philosophy in Clinical Psychology and the research was carried out by her under my supervision and guidance.

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Dated, Dhaka
December, 2002


29.12.2002
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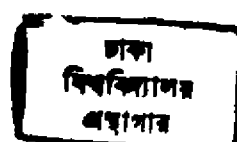


ABSTRACT

The meaning of being mentally healthy is subjected to many interpretations rooted in value judgments, which may vary across cultures. Mental health should not be seen as the absence of illness, but a form of subjective well-being. When individuals feel that they are coping fairly within control of their lives, facing challenges and taking responsibilities these individuals are not countable as having mental disorders. The aim of the present study was to explore the situation of mental disorders of psychiatric patients attending psychiatric department of the ten hospitals (DMCH, BSMMU, SSMCH, MMCH, CMCH, SMCH, BMCII, Raj. MCH, Rang. MCH, PMH) and two clinics (DMC, MOH) of Bangladesh. The major objective of the present study was to find out different diagnostic categories of mental disorders among patients attending the psychiatric department of the hospitals and clinics of Bangladesh. According to the research proforma data were collected from the relevant patient register maintained by the hospitals and clinics from January 1999 to June 2001. A total number of 32180 patients attending during this period. Of them 66.5% were males and 33.5% were females.

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This study revealed that schizophrenia and other psychotic disorders (39.251%), mood disorders (28.928%), anxiety disorders (13.452%), somatoform disorders (5.855%) and substance related disorders (4.988%) were the major psychiatric disorders in the hospitals and clinics of Bangladesh. Majority of the psychiatric patients belonged to AXIS-I (95%). The hospital wise distribution of psychiatric patients shows that the highest number of patients attended Chittagong Medical College Hospital (21.029%) and the



lowest number of patients attended Rangpur Medical College hospital (3.987%). Clinic wise distribution of psychiatric patients shows that the highest number of patients attended Dhaka Monorog Clinic (5.622%) and the lowest number of patients attended Monon Psychiatric Hospital (0.957%). Result of the chi-square test indicates that there was significant difference in the number of patients in different hospitals and clinics. The monthly rate of patients was highest in year 2001 (3.669%) and the lowest in year 2000 (3.054%). The prevalence rate of psychiatric patients seeking treatment in nine hospitals of Bangladesh in the year 2000 was 8.76 per lakh. Majority of the patients were male (66.5%) and the rest were females (33.5%). The male female ratio was 2:1. The majority of the patients with the age range of 19 to 40 years (adult group of patients) (70.127%) and the mean age of the patients was 30. Statistically significant relationship was found between mental disorders and some socio demographic characteristics (gender and age). As Bangladesh is a Muslim majority country in terms of population, majority of the Psychiatric patients were Muslim (95.214%). These findings were discussed in terms of the prevailing situation of the mental health care system in Bangladesh and the socio cultural factors. Evidently the findings indicate the necessity to improve treatment facilities for psychiatric patients by clinical psychologists and psychiatrists by adopting a multidisciplinary approach to the management of psychiatric patients.

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CHAPTER – 1

INTRODUCTION

INTRODUCTION

A proverb goes for a long time saying, "Health is Wealth". The Sound Health of an individual makes him in life happy and successful. It has to be realized that 'Mental Health' is an important part of health. According to Encyclopedia Britannica (1995), the word "Mental" of "Mental Health" does not only mean cerebral but also implies how a person can maintain a balanced relation with the people in the perspective of his/her own social and cultural context. Dr. George A.O. Alleyne, Director of the Pan American Health Organization, writes: "Mental health and physical health are inseparable, and we can say that there is no health without good mental health, which is closely connected with some of our most basic abilities - the ability to think, to establish relationships of interdependence with others, to create and to find a meaning to existence. It is intrinsically related to our ability to adapt to change, to manage crisis and to be creative". According to the World Health Organization (WHO), Health means "A state of physical, social, and mental well-being, and not merely the absence of disease or infirmity". This is because any disturbance in anyone of these three can create disequilibrium to the well being of the person.

So accumulating the above statements as 'Mental Health' can be considered as an integral component of health through which a person realizes his or her own cognitive, affective and relational abilities. Furthermore according with a balanced mental disposition, one is more effective in coping with the stresses of life, can work productively and fruitfully, and is better able to make a positive contribution to his or her community. We now know that mental ill health accounts for enormous suffering, disability and increased mortality. Mental ill health also places a heavy

burden on families and communities, represents a significant part of global burden of disease and is often associated with stigma, unemployment, social exclusion and poverty. So, we can say "Mental Health" is an absence of any mental disturbance.

There are 80 million people in the whole world suffering from severe mental problems; 80 million are addicted to drugs and alcohol, mentally retarded and affected by different organic brain disorders; and another 80 million people are suffering from different mental problems (WHO, 1970). Recent estimate showed 400 million alive people now a days suffer from mental or neurological disorders or from psychosocial problems such as-those related to alcohol and drug abuse (WHO, 2001). Approximately one in five of the world's youth (15 years and younger) suffer from mild to severe disorders (WHO, 2001). Twenty five percent of individuals develop one or more mental and behavioural disorders at some stage in life, in both developed and developing countries (Regier et al., 1988; Wells et al., 1989; Almeida-Filho et al., 1997). From the above it can be assumed that, a good number of people in the society are suffering from mental disorder and the picture is almost similar to every corner in the world.

Mental disorder is a common disorder in Bangladesh as in any other country. But our society attributes different stigma on the concept of "Mental Health", because most of the people of Bangladesh are less educated and are not aware of their mental health problem. Many of the patients suffer silently. Many of them suffer lonely. Beyond the suffering and beyond the absence of care lie of frontiers of stigma, shame, exclusion and, more often than we care to know, death. Due to prejudice, superstitions, stigma with mental disorder and at the same time paucity of mental

health services, majority of the patients attend the traditional healer like "Pir", "Ozha", "Kabiraz" for psychological symptoms. Occasionally they consult with the physicians with various somatic symptoms. In the other words we do not know how many people are not getting help. As we fail to acknowledge this reality, we perpetuate a vicious cycle of ignorance, suffering, destitution and even death.

According to WHO there are 8.4 million mentally ill people in Bangladesh (Begum and Sultana, 1999). In Bangladesh though a large country wide survey has not yet been attempted, enough evidence exists from small surveys that mental disorders are widely prevalent in our country both in the urban and rural communities, and it is not less than what has been reported in the other countries. In a survey in rural population in the Dasherbandi village near in Dhaka, it was found that 29 per thousand people suffered from psychiatric disorder while additional 36 per thousand had both psychiatric and physical disorders. Out of this 65 per thousand, at least 11 per thousand were cases of serious psychiatric disorders like- psychosis, epilepsy and mental retardation (Chowdhury, Alam and Ali, 1981). Evidence from survey of general practice in Dhaka is equally alarming. Alam (1978) had conducted a study and it was found that 29% of all cases seen in a medical general practice during the course of one year, were suffering from purely functional disorders i.e., psychological and emotional disorder. Chowdhury, Selim and Sakib (1975) conducted a study at medical out patient department of IPGMR, Dhaka, where it was found that 31% had purely psychogenic condition while additional 15% had both organic and psychogenic features.

Treatment of mental disorders in hospitals and clinics is relatively recent phenomenon in Bangladesh. The exact statistics of mentally disorderly peoples still remains unknown. Similarly we do not have any information regarding the number of people suffering from various kinds of mental illness. In the other words we do not know the distribution of various types of mental illness such as-schizophrenia, mood disorder, anxiety disorder, somatoform disorder etc. Even the distribution of patients treated in the hospitals and clinics are not known. The kind of treatment they get in the hospitals and the rate of prognosis or cure etc, and the effectiveness of different treatment methods are also in the dark. The present study was, therefore, undertaken to throw some light in this regard

1.1 Definition of Mental Disorders

Many attempts have been made to define mental disorders (Clare, 1979; Caplan, et al., 1981; Fulford, 1989). In general medicine there are three types of definition: absence of health, presence of suffering and pathological process whether physical or psychological.

First, illness of any kind can be defined as the absence of health.

A second approach is to define illness in terms of the presence of suffering.

A third approach is to define mental disorders in terms of pathological process.

Such a view was expressed by Lewis (1953b), who suggested that illness could be characterized by evident disturbance of part functions as well as general efficiency.

In psychiatry part functions refer to perception, memory, learning, emotion, and

other such psychological functions. But these definitions have been identified into different limitations.

Despite the limitations, "The Diagnostic and Statistical Manual of Mental Disorders" DSM-IV, conceptualizes each of the mental disorders as a clinically significant behavioural and psychological syndrome, or pattern that occurs in an individual and that is associated with present distress (e.g., painful symptom) or disability (i.e., impairment in or more important areas of functioning) or with a significantly increased risk of suffering, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be merely an acceptable and culturally sanctioned response to a particular event, for example, the death of a loved one.

Whatever it's original cause; it must currently be considered a manifestation of a behavioural, psychological, or biological dysfunction in the individual. Neither the deviant behavior (e.g., political, religions, or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual, as described above.

1.2 Multiaxial Classification

A multiaxial system is an assessment on several axes, each of which refers to different information that helps the clinician treatment plan and predict outcome. Five axes are included in the DSM-IV multiaxial classification. The multiaxial system is a systematic and convenient format for organizing and communicating clinical information, capturing the complexity of clinical situations and ₅ for

describing the heterogeneity of individuals with a particular diagnosis. It promotes application of the biopsychosocial model in clinical, educational and research settings. First two axes are given below.

Axis – I

(Clinical Disorders, Other Conditions That May Be a Focus of Clinical Attention).

Disorders usually first diagnosed in Infancy, Childhood and or Adolescence.

(Excluding Mental Retardation, which, is diagnosed on Axis-II).

Delirium, Dementia, Amnestic and Other Cognitive Disorders.

Mental Disorders Due to a General Medical Condition.

Substance-Related Disorders.

Schizophrenia and Other Psychotic Disorders.

Mood Disorders.

Anxiety Disorders.

Somatoform Disorders.

Factitious Disorders.

Dissociative Disorders.

Sexual and Gender Identity Disorders.

Eating Disorders.

Sleep Disorders.

Impulse-Control Disorders Not Elsewhere classified.

Adjustment Disorders.

Other Conditions That May Be a Focus of Clinical Attention.

Axis – II

Personality Disorders.

Mental Retardation.

1.3 Classification of Mental Disorders

"The Diagnostic and Statistical Manual of Mental Disorders" (DSM-IV) published by American Psychiatric Association and "The International Classification of Diseases"(ICD-10) published by WHO are being used all over the world by the mental health workers to diagnosis and manage the mental disorders. In our country DSM-IV classification for child and adult mental disorders are used for diagnosing the mental problems. According to these classificatory systems we found the nature and statistics of child and adult mental disorders. But, the statistics are mostly of other countries. Though there are debates on cultural differences and as some significant research results say disorders are most alike in different cultures.

Table-1: Classification of mental disorders according to multiaxial classification of DSM-IV

Axis	Mental Disorders
Axis I	Learning Disorders Motor Skill Disorder Communication Disorders Pervasive Developmental Disorders Attention Deficit and Disruptive Behavior Disorders Tic Disorders Elimination Disorders Other Disorders of Infancy, Childhood or Adolescence Schizophrenia and Other Psychotic Disorders Mood Disorders Anxiety Disorders Dissociative Disorders Sexual and Gender Identity Disorders Eating Disorders Sleep Disorders Substance Related Disorders Delirium, Dementia and Amnestic and Other Cognitive Disorders Impulse Control Disorders Not Elsewhere Classified Adjustment Disorder
Axis II	Mental Retardation Personality Disorder

Mental Disorders

Mental Retardation

Mental retardation is characterized by significantly sub average intellectual functioning (an I.Q of approximately 70 or below) with onset before age 18 years of age and concurrent deficits or impairment in adaptive functioning. Separate codes

are provided for Mild, Moderate, Severe, and Profound Mental Retardation and for mental retardation, Severity Unspecified.

Degrees of Severest of Mental Retardation:

Mild Mental Retardation - I.Q level 50-55 to approximately 70.

Moderate Mental Retardation - I.Q level 35-40 to 50-55.

Severe Mental Retardation - I.Q level 20-25 to 35-40.

Profound Mental Retardation - I.Q level 20 or 25.

Mental Retardation is more common among males, with a male-to-female ratio of approximately 1.5: 1. The prevalence rate of Mental Retardation has been estimated at approximately 1% (APA, 1994).

Learning Disorders

Learning Disorders are characterized by academic functioning that is substantially below, that expected given the person's chronological age, measured intelligence, and age appropriate education. The specific disorders are included in this section are Reading Disorder, Mathematics Disorder, Disorder of Written Expression, and Learning Disorder not Otherwise Specified. The prevalence of Learning Disorder range from 2% to 10% depending on the nature of ascertainment and the definitions applied. Approximately 5% of the students in public schools in the United States are identified as having a Learning Disorder (APA, 1994).

Motor Skill Disorder

This includes Developmental Coordination Disorder, which is characterized by motor coordination that is substantially below that expected given the person's chronological age and measured intelligence. Prevalence of Developmental

Coordination Disorder has been estimated to be as high as 6% for children in the age range of 5-11 years (APA, 1994).

Communication Disorder

Communication Disorders are characterized by difficulties in speech or language and include Expressive Language Disorder, Mixed Receptive Expressive Language Disorder, Phonological Disorder, Stuttering, and Communication Disorder Not Otherwise Classified.

Pervasive Developmental Disorders

Pervasive Developmental Disorders are characterized by severe deficits and pervasion impairment in multiple areas of development. These include impairment in reciprocal social interaction, impairment in communication, and the presence of stereotyped behavior, interests, and activities. The specific disorders included in this section are Autistic Disorder, Rett's Disorder, Childhood Disintegrative Disorder, Asperger's Disorder, and Pervasive Developmental Disorder.

Attention Deficit and Disruptive Behavior Disorders

Attention Deficit / Hyperactivity Disorder is characterized by prominent symptoms of inattention and/or hyperactivity-impulsivity. This disorder is much more frequent in males than in females, with male to female ratios ranging from 4:1 to 9:1, depending on the setting (i.e., general population or clinics). The prevalence rate of Attention Deficit/ Hyperactivity Disorder is estimated at 3%-5% in school¹⁰ age children (APA, 1994). Disruptive Behavior Disorders also included in this section.

1. Conduct Disorder

Conduct Disorder is characterized by a pattern of behavior that violates the basic rights of others or major age appropriate society norms and rules. Conduct Disorder is much more common in males than females. The prevalence of Conduct Disorder rates vary widely depending on the nature of the population, sampled and methods of ascertainment: for males under age 18 years, rates range from 6%-16% for females, rates range from 2%-9% (APA, 1994).

2. Oppositional Defiant Disorder

Oppositional Defiant Disorder is characterized by a pattern of negativistic, hostile, and defiant behavior. Rates of Oppositional Defiant Disorder from 2% to 16% have been reported, depending on the nature of the population sample and methods of ascertainment (APA, 1994).

Feeding and Eating Disorders of Infancy or Early Childhood

These disorders are characterized by persistent disturbances in feeding and eating. The specific disorders included are Pica, Rumination Disorder, and Feeding Disorder of Infancy or Early Childhood, Anorexia Nervosa and Bulimia Nervosa.

Tic Disorders

A Tic is a sudden, rapid, recurrent, monorhythmic, stereotyped motor movement or vocalization. It is experienced as irresistible but can be suppressed for varying lengths of time. All forms of tics may be exacerbated by stress and attenuated during absorbing activities (e.g., reading or sewing). The specific disorders included

are Tourette's Disorder, Chronic Motor or Vocal Tic Disorder, Transient Tic Disorder, and Tic Disorder Not Otherwise Specified.

Elimination Disorders

This grouping includes Encopresis, the repeated passage of feces into inappropriate places (e.g., clothing or floor). Most often this is involuntary but occasionally may be intentional. It is estimated that approximately 1% of 5 year olds has Encopresis, and the disorder is more common in males than in females (APA, 1994). And Encopresis, the repeated voiding of urine into inappropriate places during the day or night into bed or clothes. Most often this is involuntary but occasionally may be intentional. The prevalence of Encopresis at age 5 years is 7% for males 5% for females; at age 10 years the prevalence is 3% for males and 2% for females (APA, 1994).

Other Disorders of Infancy, Childhood or Adolescence

1. Separation Anxiety Disorder

Separation Anxiety Disorder is characterized by developmentally inappropriate and excessive anxiety concerning separation from home or those to whom the child is attached. The prevalence of Separation Anxiety Disorder is about 4% in children and young adolescents. It's equally common in males and females (APA, 1994).

2. Selective Mutism

Selective Mutism is characterized by a consistent failure to speak in specific social situations despite speaking in other situations. Selective Mutism is slightly more

common in females than in males. Selective Mutism is appropriately rare and is found in less than 1% of individuals seen in mental health settings.

3. Reactive Attachment Disorder of Infancy or Early Childhood

Markedly disturbed and developmentally inappropriate social relatives that occur in most contexts and are associated with grossly pathogenic care characterize reactive Attachment Disorder of Infancy or Early Childhood. Reactive Attachment Disorder of Infancy or Early Childhood appears to be very uncommon.

4. Stereotypic Movement Disorder

Stereotypic Movement Disorder is characterized by repetitive, seemingly driven, and nonfunctional motor behavior that markedly interferes with normal activities and at times may result in bodily injury.

Schizophrenia and Other Psychotic Disorder

1. Schizophrenia

Schizophrenia is a group of psychotic disorders characterized by major disturbances in thought, emotion and behavior - disordered thinking in which ideas are not logically related; faulty perception and attention; bizarre disturbances in motor activities; and flat or inappropriate affect. It causes a patient to withdraw from people and reality, often into a faulty life of delusions and hallucinations. Paranoid, Disorganized, Catatonic, Undifferentiated and Residual are also included in this section.

There are gender differences in the presentation of Schizophrenia. Women are more likely to have a later onset than men. Although it has long been held that males and females are affected in roughly equal numbers. Hospital based studies suggest a higher rate of Schizophrenia in males, where as community based surveys has mostly suggested an equal sex ratio. In general population 0.2% - 2% people are suffering from schizophrenia (WHO, 1973), this prevalence rates are similar throughout the world, and the lifetime prevalence of Schizophrenia is usually estimated to be between 0.5% - 1%. The probability of having the problem when relatives are affected by the disorder 17.4% (Shields, 1980).

2.Schizophreniform Disorder

Schizophreniform Disorder is characterized by a symptomatic presentation that is equivalent to schizophrenia except for its duration (i.e., the disturbance lasts from 1-6 months) and the absence of a requirement that there be a decline in functioning. Community studies have reported a lifetime prevalence of Schizophreniform Disorder of around 0.2%, with a 1 - year prevalence of 0.1% (APA, 1994).

3.Schizoaffective Disorder

Schizoaffective Disorder is a disturbance in which a mood episode and the active phase symptoms of Schizophrenia occur together and were preceded or are followed by at least 2 weeks of delusions or hallucinations without prominent mood symptom. Schizoaffective Disorder probably occurs more often in women.

4. Delusional Disorder

Delusional Disorder is characterized by at least 1 month of nonbizarre delusions without other active phase symptoms of Schizophrenia. Delusional Disorder is relatively uncommon in clinical settings, with most studies suggesting that the disorder account for 1% - 2% of admission to in-patient mental health facilities.

5. Brief Psychotic Disorder

Brief Psychotic Disorder is a psychotic disturbance that lasts more than 1 day and remits by 1 month. Limited available evidence suggested that Brief Psychotic Disorder is uncommon.

6. Shared Psychotic Disorder

Shared Psychotic Disorder is a disturbance that develops in an individual who is influenced by someone else who has an established delusion with similar content. Limited evidence suggested that Shared Psychotic Disorder is somewhere more common in women than in men.

7. In Psychotic Disorder Due to a General Medical Condition

The psychotic symptoms are judged to be a direct physiological consequence of general medical condition.

8. In Substance - Induced Psychotic Disorder

The psychotic symptoms are judged to be a direct physiological consequence of a drug of abuse, a medication, or toxin exposure.

9. Psychotic Disorder Not Otherwise Specified

Psychotic Disorder Not Otherwise Specified, is included for classifying psychotic presentations that do not meet the criteria for any of the specific Psychotic Disorders defined in this sections or psychotic symptomatology about which there is inadequate or contradictory information.

Mood Disorder

The Mood Disorders section includes disorders that have a disturbance in mood as the prominent feature. Two major Mood Disorders are -

1. Bipolar Disorder.
2. Unipolar Disorder or Major Depression.

1. Bipolar Disorder

The symptoms of Bipolar Disorder are the elated or irritable mood, talkativeness, and hyperactive of mania, as well as episodes of depression. The prevalence in men and women is about the same 1:1 (ECAP-1988). The lifetime risk of bipolar disorder is about 1% (ECAP-1988).

2. Unipolar Disorder or Major Depression

The symptoms of Major Depression, sometimes also referred to as Unipolar Depression. The central features of depressive disorders are depressed mood, pessimistic thinking, lack of enjoyment, reduced energy, and slowness. Of these, depressed mood is usually, but not invariably, the most prominent symptom (Gelder, Gath, Mayon, and Cowen, 1996). The prevalence ratio in men and women is about 2:1 (ECAP, 1988). The lifetime risk for major depressive disorder in community

samples have varied from 10% to 25% for women and from 5% to 12% for men (APA, 1994).

Anxiety

Anxiety is a common form of reaction that every person experiences to a greater or lesser extent during his/her lifetime. Normal Anxiety and fear can warn of danger and prevent more serious harm. But when this excessive and inappropriate to a situation it is regarded as a handicap and is regarded as a clinical problem.

Anxiety disorders are divided as follows-

General Anxiety Disorder

The essential feature of General Anxiety Disorder (GAD) is excessive anxiety and worry (apprehensive expectation). The person is always in an anxious and stressed condition, which are difficult to control and more prolonged. The worries are not focus on a specific issue. Epidemiological study suggested that women are suffering more frequently than men. The one-year prevalence rate was 2% in men and 4.3% in women (Kessler et al, 1994). The lifetime prevalence rate was approximately 3% (APA, 1994).

2. Phobic Anxiety Disorder

Phobic Anxiety Disorders have the same core symptoms of GAD, but these symptoms occur only in particular circumstances. In some phobic disorders these circumstances are few and the patient is free from anxiety for most of time. Phobic disorders are divided as follows-

I. Specific Phobia

Specific Phobia is characterized by clinically significant anxiety provoked by exposure to a specific, feared object or situation, often leading to avoidance behavior. These phobias are common in general population samples, a 1 year prevalence rate of about 9% has been reported, with life rates ranging from 10% to 11.3% (APA, 1994). Among adults the lifetime prevalence of specific phobia has been estimated, as 4% in men and 13% in women (Kessler et al, 1994).

II. Social Phobia

Social Phobia is characterized by clinically significant anxiety provoked by exposure to certain types of social or performance situations, often leading to avoidance behavior. Epidemiological and community studies suggested that Social Phobia is more common in women than in men. The one-year prevalence of Social Phobia has been estimated as 7% for men and 9% for women (Davison et al, 1993; Kessler et al., 1994). The lifetime prevalence of Social Phobia ranging from 3% - 13% (APA, 1994).

III. Agoraphobia

Agoraphobia patients are anxious when they are away from home, in crowds, or in situations that they cannot leave easily or in which help may not be available in the event of having a panic attack. The one year prevalence of Agoraphobia was estimated as 1.7% in men and 3.8% in women (Kessler, et al., 1994) and the lifetime prevalence about 6% - 10% (Weissman and Merikangas, 1986).

3. Panic Disorder

A panic attack is a discrete period in which there is sudden onset of intense apprehension, fearfulness, or terror, often associated with feeling of impending doom. During these attacks, symptoms such as shortness of breath, palpitations, chest pain or discomfort, choking or smothering sensations, and fear of "going crazy" or losing control are present (APA, 1994). The person fears of dying suddenly for choking or any heart problem. In most studies, the prevalence in women is about twice than in men. The one year prevalence of Panic Disorder is about 13 per 1000 in men and 32 per 1000 in women (Kessler et al., 1994). Epidemiological studies throughout the world consistently indicate the lifetime prevalence of Panic Disorder to be between 1.5% and 3.5%. One-year prevalence rates are between 1% and 2% (APA, 1994).

4. Posttraumatic Stress Disorder

Posttraumatic Stress Disorder is characterized by the re-experience of an extremely traumatic event accompanied by symptoms of increased arousal and by avoidance of stimuli associated with trauma (APA, 1994). Posttraumatic Stress Disorder can occur at any age, including childhood. There is no difference between the male and female community - based studies reveal the lifetime prevalence for Posttraumatic Stress Disorder ranging from 1% - 14%. Studies of risk individuals (e.g., combat veterans, victims of volcanic eruptions or criminal violence) have yielded prevalence rates ranging from 3% - 58% (APA, 1994).

5. Acute Stress Disorder

Acute Stress Disorder is characterized by symptoms similar to Posttraumatic Stress Disorder that occurs within 1 month after exposure to an extreme traumatic stress / event.

6. Obsessive - Compulsive Disorder

The essential features of Obsessive - Compulsive Disorder are recurrent obsessions or compulsions that are severe enough to be time consuming (e.g., they take more than an hour a day) or cause marked distress or significant impairment. At any point the person has recognized that the obsessions or compulsions are excessive or unreasonable. The disorder is equally common in males and females. Recent community studies have estimated a lifetime prevalence of 2.5% and 1 year prevalence of 1.5% - 2% (APA, 1994).

Somatoform Disorders

The physical symptoms of Somatoform Disorders that have no known physiological explanation and are not under voluntary control are assumed to be linked to psychological factors, presumably anxiety; they are assumed therefore to be psychologically caused. The following Somatoform Disorders are included in this section-

Somatization Disorder

The essential features of Somatization Disorder is a pattern of recurring, multiple, clinically significant somatic complains. Studies have reported widely variable the

lifetime prevalence rates of Somatization Disorder ranging from 0.2% - 2% among women and less than 0.2% in men (APA, 1994).

1. Conversion Disorder

Conversion Disorder involves unexplained symptoms or deficits affecting voluntary motor or sensory function that suggest a neurological or other general medical condition. Psychological factors are judged to be associated with the symptoms or deficits. Conversion Disorder appears to be more frequently in women than in men, with reported variation from 2:1 to 10:1. Conversion Disorders have varied widely, ranging from 11/1,00,000 to 300/1,00,000 in general population samples (APA, 1994).

2. Pain Disorder

Pain Disorder is characterized by pain as the predominant focus of clinical attention and psychological factors are judged to have an important role in its onset, severity, exacerbation or maintenance.

3. Hypochondriasis

Hypochondriasis is the preoccupation with the fear of having, or the idea that one has, a serious disease based on the person's misinterpretation of bodily symptoms or bodily functions. Hypochondriasis can begin at any age, with the most common age at onset in early adulthood. The disorder is equally common in men and women. The prevalence in general medical practice has been reported to be between 4% and 9% (APA, 1994).

4. Body-Dysmorphic Disorder

Body-Dysmorphic Disorder is the preoccupation with an imagined or exaggerated defect in physical appearance. The disorder is equally common in men and women.

Dissociative Disorder

The essential feature of the Dissociative Disorder is a disruption in the usually integrated functions of consciousness, memory, identity or perception of the environment. The disturbance may be sudden or gradual. The following disorders are included in this section-

Dissociative Disorder

Dissociative Disorder is characterized by an inability to recall important personal information, usually of a traumatic or stressful nature, that is too extensive to be explained by ordinary forgetfulness.

2. Dissociative Fugue

In a Dissociative Fugue, patients not only lose their memory but also wander away from their usual surroundings, accompanied by an inability to recall his/her past, confusion about personal identity and its occur suddenly. A prevalence rate of 0.2% for Dissociative Fugue has been reported in the general population (APA, 1994).

3. Dissociative Identity Disorder

Dissociative Identity Disorder is characterized by the presence of two or more distinct identities that recurrently take control of the individual's behavior accompanied by an inability to recall important personal information. Dissociative

Identity Disorder appears to be more frequently in women than in men, averaging 15 or more where as males' average approximately 8.

Sexual and Gender Identity Disorder

In DSM-IV the Sexual and Gender Identity Disorder are classified in three groups.

1. Sexual Dysfunction

Sexual Dysfunction is characterized by disturbance in sexual desire and in the psycho-physiological changes that characterized the sexual response cycle and cause marked distress, and interpersonal difficulty. The Sexual Dysfunctions include - Sexual Desire Disorders (i.e., Hypoactive Sexual Desire Disorder, Sexual Aversion Disorder), Sexual Arousal Disorders (i.e., Female Sexual Arousal Disorder, Male Erectile Disorder), Orgasmic Disorders (i.e., Female Orgasmic Disorder, Male Orgasmic Disorder, Premature Ejaculation), Sexual Pain Disorder (i.e., Dyspareunia, Vaginismus), Sexual Dysfunction due to a General Medical Disorders, Substance Induced Sexual Dysfunction, and Sexual Dysfunction Not Otherwise Specified. Sexual Dysfunction is found in about 10% of psychiatric out patients (Swan & Wilson, 1979).

2. Paraphilia

The Paraphilias are characterized by recurrent, intense sexual urges, fantasies, or behaviours, that involve unusual objects, activities or situations and cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. The Paraphilias include Exhibitionism, Fetishism, Frotteurism, Pedophilia, Sexual Masochism, Sexual Sadism, Transvestic Fetishism, Voyeurism,

and Paraphilia Not Otherwise Specified. Except for Sexual Masochism, where the sex ratio is estimated to be 20 males for each female.

3. Gender Identity Disorder

Gender Identity Disorder is characterized by strong and persistent cross-gender identification accompanied by persistent discomfort with one's assigned sex. Epidemiological data are difficult to obtain. Wlinder (1968) estimated the prevalence among Swedish males to be 1 in 37,000 and among females to be 1 in 1,03,000. Hoenig and Kenna (1974) reported similar figures (1 in 34,000 men and 1 in 1,08,000 women) in Great Britain. Despite this male to female ratio, most transsexuals seeking medical help are men.

4. Sexual Disorder Not Otherwise Specified

Sexual Disorder Not Otherwise Specified is included for coding disorders of sexual dysfunctioning that are not classified in any of the specific categories.

Eating Disorder

The Eating Disorder is characterized by severe disturbances in eating behavior.

This section includes two specific diagnoses –

1. Anorexia Nervosa

The essential features of Anorexia Nervosa is, that the individual refuses to maintain a minimally normal body weight, is intensely afraid of gaining weight, and exhibits a significant disturbance in the perception of the shape or size of his/her body. More

than 90% of cases of Anorexia Nervosa occur in females. There are limited data concerning the prevalence of this disorder in males.

2. Bulimia Nervosa

The essential features of Bulimia Nervosa are binge eating and inappropriate compensatory methods to prevent weight gain. In clinic and population samples, at least 90% of individuals with bulimia nervosa are female. The prevalence of bulimia nervosa among adolescents and young adult females is appropriately 1% to 3%, the rate of occurrence of this disorder in males is appropriately one-tenth of that in females (APA, 1994).

Sleep Disorders

The Sleep Disorders are organized into 4 major sections according to presumed etiology.

1. Primary Sleep Disorders

Primary Sleep Disorders are those in which none of the etiologies listed below (i.e, another mental disorder, a general medical condition, or a substance) is responsible. Primary Sleep Disorders are presumed to arise from endogenous abnormalities in sleep-wake generating or timing mechanisms, often complicated by conditioning factors. Primary Sleep Disorders in turn are subdivided into dyssomnias and parasomnias.

I.Dyssomnias

Dyssomnias are primary disorders of initiating or maintaining sleep or of excessive sleepiness and are characterized by a disturbance in the amount, quality, or timing of sleep. This section includes primary Insomnia, Primary Hypersomnia, Narcolepsy, Breathing - Related Sleep Disorder, Circadian Rhythm Sleep Disorder, and Dyssomnia Not Otherwise Specified.

II. Parasomnias

Parasomnias are disorders characterized by abnormal behavioural or physiological events occurring in association with sleep stages, or sleep wake transitions. This section includes Nightmare Disorder, Sleep Terror Disorder, Sleepwalking Disorder, and Parasomnia Not Otherwise Specified.

1. Sleep Disorder Related to Another Mental Disorder

Sleep Disorder Related to Another Mental Disorder involves a prominent complaint of sleep disturbance that results from a diagnosable mental disorder (often a Mood Disorder or Anxiety Disorder) but that is sufficiently severe to warrant independent clinical attention. Presumably the pathophysiological mechanisms responsible for the mental disorder also affect sleep-wake regulation. Sleep Disorders Related to Another Mental Disorders are more prevalent in female than in males. Insomnia related to Another Mental Disorder is the most frequent diagnosis (35%-50%) among individuals presenting to sleep disorders centers for evaluation of chronic insomnia. Hypersomnia Related to Another Mental Disorder is a much less frequent diagnosis (fewer than 5%) among individuals evaluated for hypertension at sleep disorder centers (APA, 1994).

2. Sleep Disorder Due to a General Medical Condition

Sleep Disorder Due to a General Medical Condition involves a prominent complaint of sleep disturbance that results from the direct physiological effects of a general medical condition on the sleep wake system.

3. Substance Induced Sleep Disorder

Substance Induced Sleep Disorder involves prominent complaints of sleep disturbance that result from the concurrent use, or recent discontinuation of use, of a substance (including medication).

Personality Disorder

A Personality Disorder is an enduring pattern of inner experience and behavior that deviates from the expectations of the individuals' culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment. The Personality Disorders are grouped into three clusters based on descriptive similarities.

Cluster A, includes the Paranoid, Schizoid and Schizotypal Personality Disorders.

Individuals with these disorders often appear odd or eccentric.

Cluster B, includes the Antisocial, Borderline, Histrionic, and Narcissistic Personality Disorders. Individuals with these disorders often appear dramatic, emotional, or erratic.

Cluster C, includes the Avoidant, Dependent, and Obsessive Compulsive Disorders.

Individuals with these disorders often appear anxiety or fearful.

Individuals frequently present with co-occurring Personality Disorders from different clusters. Certain Personality Disorders (e.g., Antisocial Personality Disorder) are diagnosed more frequently in men. Others (e.g., Borderline, Histrionic, and Dependent Personality Disorders) are diagnosed more frequently in women.

Substance Related Disorders

The Substance Related Disorders include disorders related to the taking of a drug of abuse (including alcohol), to the side effects of a medication, and to toxin exposure.

The substances discussed in this section are grouped into 11 classes: alcohol; amphetamine; or similarly acting sympathomimetics; caffeine; cannabis; cocaine; hallucinogens; inhalants; nicotine; opioids; phencyclidine (pcp) or similar acting arylcyclohexylamines; and sedatives, hypnotic, or anxiolytics. Also included in this section are Polysubstance Dependence and Other or Unknown Substance Related Disorders (which include most disorders related to medication or toxins).

The Substance Related Disorders are divided into two groups:

I. The Substance Use Disorders (Substance Dependence and Substance Abuse)
and

II. The Substance Induced Disorders (Substance Intoxication, Substance Withdrawal, Substance Induced Persisting Amnesic Disorder, Substance Induced

Psychotic Disorder, Substance Induced Mood Disorder, Substance Induced Anxiety Disorder, Substance Induced Sexual Dysfunction and Substance Induced Sleep Disorder).

In most cultures the prevalence of substance abuse and dependence is lower in those aged over 45 years (Helzen & Canion, 1992). It means the prevalence of abuse and dependence is higher in young population. Recent studies suggest that the homeless young are at considerably greater risk of abusing alcohol and other substances (Medina-Mora, 1992). Rates of alcohol abuse and dependence are consistently higher in men than in women but the ratio of affected men to women varies markedly across cultures.

Delirium, Dementia and Amnestic and Other Cognitive Disorders

This section includes Delirium, Dementia, Amnestic and Other Cognitive Disorders Not Otherwise Specified. The predominant disturbance is a clinically significant deficit in cognition or memory that represents a significant change from a previous level of functioning. For each disorder in this section, the etiology is either a general medical condition (although the specific general medical condition may not be identifiable) or a substance (i.e., a drug of abuse, medication, or toxin), or a combination of these factors.

1. Delirium

A Delirium is characterized by a disturbance of consciousness and a change in cognition that develop over a short period of time. The Delirium may begin abruptly (e.g., after a head injury). In individuals over age 65 years who are hospitalized for a

committing the act and then experiences pleasure, gratification or relief at the time of committing the act. The following disorders are included in this section:

1. Intermittent Explosive Disorder

Intermittent Explosive Disorder is characterized by discrete episodes of failure to resist aggressive impulses resulting in serious assaults or destruction of property.

2. Kleptomania

Kleptomania is characterized by the recurrent failure to resist impulses to steal objects not needed for personal use or monetary value. It appears to be much more common in females.

3. Pyromania

Pyromania is characterized by a pattern of fire setting for pleasure, gratification, or relief of tension. Pyromania occurs much often-in males, especially those with poorer social skills and learning difficulties.

4. Pathological Gambling

Pathological Gambling is characterized by recurrent and persistent maladaptive gambling behavior. The prevalence of Pathological Gambling may be as high as 1%-3% of the adult population (APA, 1994).

5. Trichotillomania

Trichotillomania is characterized by recurrent pulling out of one's hair for pleasure, gratification, or relief of tension that results in noticeable hair loss.

general medical condition, approximately 10% are reported to exhibit delirium and another 10%-15% may develop Delirium while in the hospital (APA, 1994).

2. Dementia

A Dementia is characterized by multiple cognitive deficits that include impairment in memory. The age at onset of Dementia depends on the etiology, but is usually late in life, with highest The prevalence of Dementia, especially Dementia of the Alzheimers Type and Vascular Dementia, increases with age, particularly after age 75 years, with a prevalence of 20% or more over age 85 years (APA, 1994).

3. Amnestic Disorder

An Amnestic Disorder is characterized by memory impairment in the absence of other significant cognitive impairments.

4. Cognitive Disorder Not Otherwise Specified

Cognitive Disorder Not Otherwise Specified is for presentations that are characterized by cognitive dysfunction presumed to be due to the direct physiological effect of a general medical condition that do not meet criteria for any of the specific deliriums, dementia or amnestic disorder listed in this section.

Impulse Control Disorders Not Elsewhere Classified

Impulse Control Disorders is the failure to resist an impulse, drive, or temptation to perform an act that is harmful to the person or to others. For most of the disorders in this section the individual feels an increasing sense of tension or arousal before

Adjustment Disorder

The essential feature of an Adjustment Disorder is the development of clinically significant emotional and behavioural symptoms in response to an identifiable psychological stressor. The clinical significance of the reaction is indicated either by marked distress or by significant impairment in social and occupational functioning. Adjustment Disorders are apparently common. Adjustment Disorder may occur in any age group and males and females are equally affected.

1.4 Causes of Mental Disorders

Mental Disorders are questions about what causes people to behave maladaptive. Equipped with knowledge of the causes of mental disorders, we might be able to prevent conditions that lead to the disorders and perhaps reverse those that maintain the disorders. We could also classify and diagnose disorders better if we clearly understand their causes rather than relying on clusters of symptoms. It is very difficult to understand the causes of mental disorders because human behaviour is very complex. As a result, many investigators now prefer to speak of risk factors rather than of causes.

There is a prevailing cultural belief that the psychiatric illnesses are due to the influence of evil spirits, jinn, fairy and some supernatural power. To a greater extent this prejudice is due to ignorance. Even then, a large number of literate people in the society are also found to believe this misconception. People attending psychiatric service facilities usually become interested to know the causes of mental illness.

A psychiatric illness is the outcome of the interaction of a number of factors arising from biological, psychosocial and sociocultural dimension of the individual. In fact, the etiology of mental illness is multifactorial. Causes of mental disorders include:

1. Biological Factors.
2. Psychosocial Factors.
3. Sociocultural Factors.

1.4.1 Biological Factors

Biological factors play a role in psychological disorders from Depression to Schizophrenia. Genetic defects, Biochemical imbalances, Constitutional liabilities, Brain dysfunction, Physical deprivations or disruptions etc are the major causes of a wide range of mental disorders, including Schizophrenia, Mood Disorders, Autism, Alzheimers Disease, Anxiety Disorders and Antisocial Personality (Carey & Dilalla, 1994; Dilalla & Gottesman, 1991; Gottesman, 1991; Plomin, Owen, & Mc Guffin, 1994).

In many cases Mental Retardation can be traced to biological causes, including genetic disorders, infectious diseases, and brain damage. However more than half of the cases of mental retardation remain unexplained, with most of these cases falling

in the mild range of severity (Flint et al., 1995). Some cases of mental retardation are caused by maternal infections or substance abuse during pregnancy.

1.4.2 Psychosocial Factors

Psychosocial Factors make people vulnerable to discord or may precipitate disorder. This situation is somewhat more complicated than for biological causes. Psychosocial factors are those developmental influences that may handicap a person psychologically, making him or her less resourceful in coping with events. Schemas and self-schemas, early deprivation and trauma, inadequate parenting, pathogenic family structures, maladaptive peer relationships etc are the major causes of a wide range of mental disorders such as, conduct disorders, depression etc.

1.4.3 Socio-cultural Factors

The socio-cultural factors increase the vulnerability to the development of abnormal behaviour by considering the role of culture in determining an individual's behaviour patterns. For reasons of temperament, conditioning, and other individual factors, not all people adopt the prevailing cultural patterns. The particular factors in the social environment may increase vulnerability: low socioeconomic class, stress of poverty, gender discrimination, prejudice and discrimination, economic and environment problems, and social change and uncertainty.

1.5 Findings of Epidemiological Studies

Epidemiological study is needed to identify the prevalence of mental disorders and factors responsible for distribution of diseases and also to know the magnitude of the

problem, to plan and to evaluate psychiatric services of a country. WHO made a global assessment that at least 1% of the population of any society suffers from severe mental disorders and at least 10% of the population suffers from mild mental disorders (NIMH, 2002).

1.5.1 Prevalence in Developed Countries

In developed countries many epidemiological studies have been carried out to find out the prevalence of psychiatric disorder in general population, in primary care attenders and in out patient department of a general hospital.

Offord et al (1989) conducted the Ontario child health study drew a large multistage probability sample of 3294 children and adolescents in the Canadian province of Ontario. All children aged from 4 to 16 in the selected households were studied so that a broader age range was covered. The overall 6 months prevalence of one or more of the 4 psychiatric disorders among Ontario children was 18.1%.

Kashani et al (1987) conducted a one-stage prevalence study of psychiatric disorder in a community sample of 150 adolescents of Columbia aged 14 to 16 years. 18.7% of the adolescents were identified as heaving a psychiatric disorder.

The most recently published one-stage longitudinal follow up study in two waves was undertaken by Cohen et al (1993) in New York, USA on 975 children. They were originally sampled in 1975 and followed up in 1983 (when they were 9-18

years) and 192 (when they were 11-20 years). Children and adolescents classified as severe ranged from 15.6% to 19.4% depending on the wave of the study and the age group.

The Christchurch health and development study on adolescents in New Zealand showed overall prevalence of any disorder to be 27.3% (Fergusson et al, 1993). Bird (1995) in his report on epidemiological of childhood disorders in cross-cultural context, mentioned that the corrected true prevalence of the disorders in 9-12 year old children of Ireland was 25.4%.

Kewly (1998) suggests that the condition is undertaken in Britain and reports showing a data that approximately 0.03% of school children are treated with psycho stimulants in the U.K compared with 1% in Australia and 3% in the USA.

1.5.2 Prevalence in Developing Countries

In developing countries the prevalence of psychiatric morbidity is almost similar to western countries. Survey in Ethiopia, Sudan and India reported prevalence rates ranging from 3%-11% for children and adolescents (Mulatu, 1995).

A survey in the Kathmandu valley in 1983 by Shrestha et al (1983) found a prevalence of over 14% including psychosis but excluding epilepsy and alcoholism.

A four-country study done in primary health care settings in Sudan, Colombia,

India, and Philippines by (WHO) gave a prevalence rate, which varied from 10%-29% for child psychiatric disorder. (Giel et al, 1981)

In India one study reported 36% psychiatric morbidity in general practice (Krishnamurthy, Samsunder, Prakash & Prabhakar, 1981).

Abiodun (1993) surveyed in a pediatric population in Nigeria and showed 15% mental morbidity. It was done among 500 children aged 5 to 15 years in a rural community.

Age based prevalence of disorders in community survey in Jimma Town of Ethiopia showed 23.2% prevalence in 6-11 years old (Mulatu, 1995).

In a community survey in Ethiopia the prevalence rate of psychiatric disorder was 6.8% to 26.7% (Geil & Vanluijk, 1969).

A similar type of study had been carried out in Khartoum and it is found at least 40.3% of population had one psychiatric symptom and 16.6% received clinical diagnosis according to DSM-III by using Self Rating Questioner (SRQ) (Idris et al., 1989).

Several studies have been carried out in India Sub Continent to find out the prevalence of psychiatric morbidity. Studies done in Indian sub Continent, it was observed that in Nepal about 25% of primary care attenders were detected of mental illness by using Self Rating Questionnaire (Wright et al., 1989).

Mumford et al (1997) detected 25% psychiatric morbidity among male and 66% among female according to ICD-10 in Punjab, India.

In a recent study performed on primary care attenders in Goa, India. It is observed that 46.5% of attenders were detected as psychiatric cases using by Revised Clinical Interview Schedule (CIS-R) (Patel et al., 1998).

Idris, Rahim et al (1989) in Sudan detected 16.6% prevalence rate of psychiatric disorder according to DSM-III criteria.

In Nicaragua 23% prevalence of psychiatric morbidity was found on general population in 1989. by using Self Rating Questionnaire (SRQ) (Penayo et al., 1990).

In 1988 in Santiago, Chile, a study randomly selected on primary care attenders and psychiatric morbidity was found 53.4% by using Revised Clinical Interview Schedule (CIS-R), (Araya et al., 1994).

1.5.3 Prevalence of Mental Disorders in Bangladesh

WHO estimated approximately 1 crore 32 lakhs mentally ill people in Bangladesh (Bangladesh Statistical Pocket Book, 1999). In Bangladesh, though a large countrywide survey of psychiatric morbidity has not yet been attempted enough evidence exists from small study that psychiatric disorder is widely prevalent in our country.

Jahan (1998) conducted a study on psychiatric morbidity among underprivileged children and adolescents in Dhaka city. The prevalence rate was found to be 22.9%.

The only community survey in Bangladesh on psychiatric morbidity was carried out at rural population in the Dasherbandi village near Dhaka-1978 and it was found that 6.5% of the population was suffering from psychiatric disorders (Chowdhury, Alam and Ali, 1981). Evidence from survey of general practice in Dhaka is equally impressive.

Alam (1978) had conducted a study and it was found that 29 % of all cases seen in a medical general practice during the course of one year, were suffering from purely functional disorders i. e; psychological and emotional disorder.

Chowdhury, Sleim & Sakib (1975) had conducted a study at medical out patient department of IPGMR, Dhaka, it was found that 31% had purely psychogenic condition while additional 15% had both organic and psychogenic features.

1.5.4 Prevalence of Specific Types of Disorders

Various studies have been performed to find out the prevalence of specific types of disorders of which the mentionable are enumerated below.

The biggest single group of disorders identified in the Isle of Wight study was that of conduct disorders. Including children with mixed conduct and emotional disorders the prevalence of conduct disorder was 4%. This contrasted with the

prevalence of 2.5% for emotional disorders leaving only, 3% of the children with other psychiatric disorders in the Isle of Wight study (Rutter et al, 1970).

Fombonne (1994) in his study regarding prevalence of psychiatric disorder among French school children showed equal rates of disruptive and emotional disorders (6.5%-5.9%).

In the study of psychiatric disorders in a community sample of adolescents, Kashani et al (1987) had the three most common diagnoses of Anxiety disorder, Conduct disorder and Depression the prevalence rates of which were 8.7%, 8.7%, and 8% respectively. Oppositional disorder, Mixed Substance Abuse, Attention deficit disorders were found to be 6.0% 6.0% and 2.0% respectively.

Reviews of epidemiological studies of ADHD report overall prevalence rates varying from 1%-9%, diagnostic criteria applied and the demographic characteristics of the population studied (Cohen et al., 1993; Hinshaw, 1994; Mc. Ardle et al., 1995).

Overall prevalence rates for Conduct Disorders and Oppositional Defiant Disorders vary from 4%-14% depending upon the criteria used and the population studied (Cohen et al., 1993; Carr, 1993).

Autism is the most common disorder of Pervasive Developmental Disorders, with a prevalence rate of 2-5 per 10000 (Volkmar, Klin & Cohen, 1997).

Bird et al (1995) conducted a study in Warren County in USA sampled the entire enrolment of the 9th through 12th grades in public and private schools of which 5108 participated in the study. The study searched for Internalizing and Eating Disorders. The most common were Dysthymic Disorder 4.9%, Major Depression 4% and Generalized Anxiety Disorder 3.7%.

The Christchurch health and development study by Fergusson, Horwood, Shannoon et al (1993) is a longitudinal study of a birth cohort of 1265 New Zealand children born in the Christchurch urban region. The prevalence rates of specific disorders in the children at age 15 were highest for anxiety disorders 12.8%, followed by conduct disorders 10.8%, substance abuse 7.7%, mood disorder 6.6% and attention deficit hyperactivity disorder 4.8%.

Bird et al (1995) carried out a study in Ireland assessed a population of 2029 children aged 9 through 12 years in Dublin schools. The prevalence of specific disorders was estimated as follows: conduct disorder 10.0%, enuresis 11.6%, emotional disorders 4.7%, mixed conduct and emotional disorders 4.2% and hyperkinetic syndrome 2.1%.

In the well - known study by Bird et al (1988) it was found that oppositional disorder ranked the highest 9.9% and attention deficit disorder the second 9.5% and depression the third 5.9%. Separation anxiety disorder and functional enuresis rated 4.7% each and simple phobia 2.6%.

In the study in pediatric primary care clinic by Gureje et al (1994) prevalence of depressive disorder, anxiety disorder and conduct disorder were 6%, 4.7% and 6.1% respectively.

Around 24 million people worldwide suffer from Schizophrenia. The disorder is found equally in men and women (WHO, 2002).

Schizophrenia is a problem of enormous proportions. Evidence from epidemiological studies in United States, the multisite Epidemiologic Catchment Area (ECA) study, report a lifetime prevalence rate for Schizophrenia in the general adult population of about 1% (Keith, Regier, & Rae, 1991). This percentage means that more than 2 million people in the United States warrant a diagnosis of Schizophrenia at some point in their lives.

Around 45 million people world wide above the age of 18 suffer from Schizophrenia at some point in their lives. It was found that 4.5 million people in Africa, 5.9 million people in America, 3.5 million people in Eastern Mediterranean, 6.5 million people in Europe, 11.9 million people in South –East Asia and 12.5 million people in Western Pacific by (WHO) suffer from the diseases. The disorders have been found in all nations where studies have been conducted.

According to the results of WHO multinational study in the 1960s and 1970s showed that the rate of Schizophrenia appears to be similar in both developed and developing countries (Jablensky et al., 1992).

Nearly 1 million people in the United States are treated for Schizophrenia each year. Schizophrenia accounts for 75% of all expenditures in the United States for mental health treatment ('Schizophrenia Update-Part I', 1995).

Araya et al (1994) carried out among primary care attenders in Chile, the prevalence of psychiatric disorder was 53.4%, according to CIS-R criteria.

Anxiety was the most prevalent disorder present among 57% attenders. Depression was the second common disorder, the rate was present among 35% attenders and somatic complaints related disorder was prevalent among 45% attenders.

Bargqero et al (1997) detected 31.5% psychiatric morbidity among primary care attenders in Northern Spain by adopting Schedule for Clinical Assessment in

Neuropsychiatry (SCAN). They found 18.5% Anxiety Disorder, 10.7% Depressive Disorders. 7.2% Alcohol and Drug Related Disorders and 2% Psychosis and other disorders among primary care attenders.

In the Epidemiological Cataachment Area (ECA) study the one-month prevalence rate for bipolar disorder was 0.4%. The prevalence in men and women is about the same. (Regier et al., 1988).

In an epidemiological study in Khartum in 1994, Idris and Rahim et al (1989) found 16.6% psychiatric prevalence using DSM-III criteria. Depressive disorder was the most common finding and was observed in the study.

In a similar type of study by Orley et al (1979) in Uganda, the rate of psychiatric morbidity was 20% where Depressive Disorder was the most prevalent disorder, than the Anxiety Disorder.

Major Depressive Disorder is the most common type of diagnosable Mood Disorders, affect nearly 1 in 5 adults (17%) in the United States at some point in their lives (Blazer et al, 1994).

The most recent results from the National Comorbidity Survey (NCS) found that lifetime prevalence of Major Depression for males is at nearly 13%, and for females at 21% (Kessler et al., 1994).

The lifetime prevalence of people with any anxiety disorder is estimated to be about 15% (Barlow, 1988, Robins, Helzer, Weissman et al., 1984).

For all Anxiety Disorders combined, 6 months prevalence rates were about 9% and lifetime prevalence rates were nearly 15% (Robins and Regier, 1991).

Generalized Anxiety Disorder is a relatively common condition, with current estimates that it is experienced by approximately 4% of the population in any one year period (Robins and Regier., 1991).

A more recent and carefully conducted study of Panic disorder estimated lifetime prevalence of Panic disorder is to be nearly 4% (Katerndahl & Realini, 1993).

The National Comorbidity Survey (NCS) reported a lifetime prevalence of PTSD among adults in the United States is of 7.8%, and a current (1 month) prevalence rate is of 2.3% (Kessler et al., 1995).

OCD is one of the most common disorders, affecting between 2% to 3% of adults in the United States and in other countries during their lifetimes (APA, 1994; Taylor, 1995; Weissman et al., 1994).

Researchers estimate the prevalence of Dissociative Disorders in the general population falls between 5%-10% (Ross et al., 1990).

The NCS in the United States found that the 1year prevalence for Drug Abuse and Drug Dependence (excluding Alcohol Abuse) was 3.6%, while the lifetime prevalence was 11.9%. The 1year prevalence of Drug Abuse and Dependence in men 5.1% was more than twice that in women 2.2% (Kessler et al., 1994).

Results from a large - scale, representative national sample in 1992 showed that more than 7% of adult Americans could be classified as having an Alcohol Abuse or Dependence Disorder during the past years (Grant et al., 1994).

The National Comorbidity Survey (NCS), which was based on a national probability sample of more than 8000 adults aged 15 to 54, shows just how widespread the problems of Substance Dependence are in their society (Anthony, Warner, & Kessler, 1994; Crum et al., in press; Warner et al., 1995).

In a personal interview survey of a random sample of 225, 40 year old, Danish women Grade and Lunde (1980) found 35% reported current Sexual Problems.

A World Health Organization study of 10 countries found a rather consistent annual inception rate for Schizophrenia ranging from 0.07 per 1000 Aarhus, Denmark, to 0.14 per 1000 in Nottingham, United kingdom (Jablenskey et al., 1992).

More recent study of medical patients in some 14 different countries, including Germany, the Netherlands, India, Turkey, Nigeria, Japan, China and Brazil, showed that diagnosable mental disorders such as Depression and Anxiety Disorders were common, although prevalence rates did vary across countries (Ormel et al., 1994).

1.5.5 Prevalence of Specific Types of Disorders in Bangladesh

In Bangladesh the only community survey was carried out at dasherkandi where depressive disorder was observed as commonest disorder (Chowdhury, Alam and Ali 1981).

Mullick, Khanam & Islam (1995) conducted a study to find out the pattern of psychiatric morbidity among all the children patients who have attended outpatients department of Institute of Mental Health and Research, Dhaka in the calendar year, 1990. By using ICD-9 criteria in assessment of psychiatric conditions, childhood emotional disorder was the largest group with 32.5% followed by conduct disorder comprised of 18.76%, Mental Retardation comprised of 16.25%, Psychoses and

allied conditions comprised of 11.25%, Epilepsy with behavioural problems comprised of 12.5% and rest comprised of others group of disorders.

Jahan (1998) conducted a study on psychiatric morbidity among underprivileged children and adolescents in Dhaka city. She was found GAD and Nocturnal Enuresis ranged the highest 4.3%, Conduct Disorder was found rank second in order 3.3%. Depression and Somatoform disorder had 2.9% prevalence rate.

Islam, Mullick & Khanam (1993) conducted a study at psychiatric out patient department of Institute of Mental Health and Research, Dhaka and they found schizophrenia and affective disorders suffering 32% and 30% respectively, and neurotic disorders comprised of 14%, childhood and adolescent disorders comprised of 8%, drug and alcohol dependence comprised of 3%, sexual disorders comprised of 3%, mental retardation comprised of 1% and rest 3% comprised of others group of disorders.

Rahim & Islam (1996) conducted a study at psychiatric out patient department of Sir Solimullah Medical College, Mitford Hospital, Dhaka and they found 29.87% were suffering from schizophrenia, 28.99% were suffering from mood disorders, neurotic patients included GAD comprised of 7.15%, followed by dissociative disorder 4.21%, phobic anxiety disorder 3.33%, OCD comprised of 2.93%, somatoform disorder 2.84%, sexual disorder 1.96%, and PTSD 1.37%. A good number of psychoactive substance abuse patients comprised of 3.43% were found.

A significant number of epileptic patients comprised of 4.41%, followed by dementia 1.57%, mental retardation 1.47%. In this study childhood mental disorders

comprised 9.5% were found which included pervasive developmental disorders i.e. psychosis 1.18%, conduct disorder 0.98%, hyperkinetic disorder 0.88% and nocturnal enuresis 0.68%.

Khan (1999) conducted a study on prevalence of psychiatric morbidity among primary care at psychiatric out patient department of BSMMU Hospital, Dhaka. He found depressive disorder including dysthymia was the commonest psychiatric disorder prevailing among female and male 50.04% and 41.8% respectively, GAD was 33.3% prevalent in females and 25.5% in case of males, 13.7% of female were suffering from somatoform disorder whereas 12.7% male were suffering from the same disorder. Psychoactive substance related disorder was 16.4% and prevalent among the male attenders only, bipolar disorder and phobic anxiety disorder were 3.6% prevalent in male, obsessive compulsive disorder, conversion disorder and PTSD were 2.7% prevalent among female primary care attenders.

1.6 General Information of Bangladesh

The People's Republic of Bangladesh came into being as a sovereign country in 1971. Bangladesh lies in the south - eastern part of South Asia. The area of the country is 1,43,999 square kilometers (55,598 square miles). Except comparatively small areas such as the hilly region in the north - east, the south - east and in part of north - east and north - west, the country is mainly a low flat and fertile land divided by a network of rivers. Bangladesh enjoys a sub tropical monsoon climate.

The enumerated population of Bangladesh as in the census night of 22nd January, 2001 is provided in table-2.

Like other least developed countries majority people of Bangladesh are still below the poverty level. The percentage of Muslim population was 88.3% while that of Hindu, Buddhism and Christian was 10.5%, 0.6% and 0.3% respectively according to the population census of 1991.

Table –2 : Basic Information of Bangladesh.

Name of the country	People's Republic of Bangladesh
Area (sq. km.)	1,47,570 sq.km. (56,977 sq. miles)
Total population	12,92,47,233
Male	6,58,41,419
Female	6,34,05,815
Sex ratio	103.8:100
Growth rate of population	12.93 crore (1.48%)
Population density (sq. km.)	834 (year of 2001)
Households	2.54 crores
Urban population	2,88,08,477 (23.39%)
Rural population	9,43,42,769 (76.61%)

1.7 Mental Health Concept of Bangladesh

The developed countries gave attention to mental health and physical health, by the end of 2nd world war. But most of the under developed countries do not pay any attention to the mental health of their people. And Bangladesh is not out of this list.

The concept of mental health in Bangladesh is more or less similar to that of the other least developed countries of the world. In fact our society attributes prejudice, superstitious, ignorance and social stigma on the concept of "Mental Health".

disorder whereas Illiteracy, extreme poverty, cultural taboo, ignorance, religious factors and strong socio - cultural factors are the main causes of mental disorders in Bangladesh. Most of the early psychotic symptoms are interpreted as possessions by spirits and they go for treatment to the traditional healers like-'Pir", "Ozha", "Kabiraz", rather than to doctors. Beating, hitting, chaining, dipping in the pond, forced inhalation of pungent fumes of dried red chili, cutting of muscles, arteries and nerves, putting poisonous mustard oils into eyes, putting marks on shoulders and body with burning hot iron rod are practiced frequently for the treatment of mental illness. Death as a result of these is not infrequent in this country. Most of the time people think marriage is the best treatment for the unmarried mental disordered patient. Females are more victims than males.

1.8 Existing Mental Health Services in Bangladesh

Treatment of mental disorders in hospitals and clinics is relatively recent phenomenon in Bangladesh. Patients are hardly taken to hospitals and clinics for treatment. Although mental disorders are as important as physical disorders.

Mental health care in Bangladesh started properly from 1958 at Pabna. In the early years, Pabna Mental Hospital (PMH) started with 60 beds facilities which was extended up to 200 beds in mid sixties further raised up to 400 bedded specialized hospital status in late sixties and recently raised to a 500 bed specialized hospital.

The first out patient clinic in a general hospital was opened in 1964 in Dhaka Medical College Hospital. After the liberation war in 1972 the out patient clinic was started in former Institute of Post - Graduate Medicine and Research (IPGMR), Dhaka now known as BSMMU. In late seventies most of the medical colleges had in-patient and outpatient units. At present psychiatric services are confined to Pabna Mental Hospital, nine older and five newer Government Medical College Hospitals, Bangabandhu Sheikh Mujib Medical University and in the Institute of Mental Health, Dhaka. Besides, few private hospitals and clinics are also providing psychiatric services to the people.

The major groups of mental health professionals are Psychiatrist, Clinical Psychologist, Occupation Therapist, Psychiatric Nurses and Social Worker. At present in Bangladesh the number of mental health professionals are Psychiatrists (N = 70), Clinical Psychologists (N = 6) and Psychiatric nurses (N = 72).

Mental disorders can be treated with drugs, psychotherapy or both. A team-approach is more effective for the management of psychiatric cases. This team-approach is developed with a group of people where the major groups of mental health professionals are included. This team-approach is already started for the management of mental disorders patients in developed countries. But this team-approach is a recent phenomenon in developing countries. In Bangladesh this team approach only in Pabna Mental Hospital. In BSMMU took an initiative and started a team-approach program for the management of psychiatric cases.

Though the scheme is still at a very primary level. Yet it is expected that the plan would have a countrywide expansion in future. As a result materialization of this plan would create a congenial atmosphere for the team and the team would leave a positive effect in the management of psychiatric cases but there is no regular clinical psychologist in the hospital. Clinical psychological services are available only in Dhaka at NGO level.

So far, Bangabandhu Sheikh Mujib Medical University (BSMMU) and Bangladesh College of Physician and Surgeon (BCPS) are the only centre for post-graduate courses in psychiatry department in Bangladesh. Clinical Psychology Department of Dhaka University is the only department for post-graduate course in clinical psychology.

Therefore, from the above scenario one can get an overall idea about the poor condition of psychiatric services in Bangladesh. All the hospitals and clinics are mentioned above located in large cities of the country. So majority of the people of this country in rural area are not getting any benefit from these services. Recently a small step has been taken by the authority of the Institute of Mental Health, Dhaka; funded by WHO. In pursuance of this policy of extension of mental health services to the community, it was decided to train two medical officers from each Thana Health Complex and 25% of the health assistants are working in the rural areas. So far through this training program Institute of Mental Health and Research has trained up 1101 medical officers and 1100 health assistants working in the remotest areas in the country. This endeavor to some extent may be beneficial the rural people of the country.

1.9 Correlation of Mental Disorders

Age

Age itself acts as a correlates of mental disorders. Different studies shown the prevalence of psychiatric disorders done in different ages.

Jahan (1998) done a study on psychiatric morbidity among underprivileged children and adolescents in Dhaka city. Specific age prevalence rate was found to 22.2% and 25.0% among 10-13 years and 14-16 years age group respectively, which was done on 10-16 years old children.

Finding of different epidemiological studies it was evident that 20-39 years of age group contributed more than a half of total patients (Giel & Vanluijk, 1969; Chowdhury, Alam & Ali, 1981; Alam, 1978).

Islam, Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health and research and they found the largest numbers of patients were in the age of 20-29 years of all cases.

Rahim & Islam (1996) conducted a study on psychiatry morbidity in outpatient of a general hospital in Bangladesh, they found largest number of patients were in the age group of 15-24 years (32.80%).

Sex

From literature of epidemiological studies done on general population it was evident that most of the studies was carried out on both sex.

In Ontario Child Health Study different prevalence rates were found in boys than and girls according to their age group. The prevalence was higher in boys (9.6%) than girls (3.9%) in 4-11 years age group but the reverse was true for boys (10.1%) than girls (16.8%) in 12-16 years olds.

Research has been carried out in various parts of the world in order to see how boys and girls differ on behavioural problems. The majority of the findings (e.g., Achenbach & Edelbrock, 1983; Eme, 1984; Rutter et al., 1970) show that the rate of behavior problems for boys exceeds the rate for girls.

Anderson et al (1989), and Costello et al (1988) found that more boys are depressed than girls.

Fleming et al (1989), Garrison et al (1990), Domenech et al (1992) found that in adolescence higher rates of depression are seen in females.

Jahan (1998) conducted a study on psychiatric morbidity among underprivileged children and adolescents in Dhaka city. Sex wise prevalence rate was found at a rate of 20.0% among boys and at a rate of 25.4% among girls.

In India, Patel et al (1998) carried out a study and found very high psychiatric morbidity among the subjects. The prevalence rate was 46.5% and female cases were more than male and most of them were encountered for anxiety and depression.

Mumford et al (1997) also found similar findings in Punjab in a community study. In that finding prevalence rate among female was 66%, on the other hand, only 25% of male were detected as psychiatric cases.

Islam, Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health and research and they found males were suffering more psychiatric problem than females.

In a survey of rural population in the Dasherbandi village near Dhaka in Bangladesh it was found that males were suffering more psychiatric problem than females (Chowdhury, Alam & Ali, 1981).

Rahim & Islam, 1996 conducted a study on psychiatry morbidity in outpatient of a general hospital in Bangladesh, they found male patients (64.76%) were much higher than the females (35.26%).

Above in relation to sex, it has been found that general prevalence of psychiatric disorder is higher in boys than girls in early or middle childhood and lower in adolescence age group. It has been found that specific disorders are prevalent in

different sexes. It was also clear that female were suffering more than males and anxiety disorder, depressive disorders were more prevailing among them.

Religion

Islam, Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health and research in Bangladesh and they found the largest number of cases were Muslim (87.82%), Hinduism was the second largest religious group (10.35%), Christian and Buddhist patients were found about 1.08% and 0.75% respectively.

In a survey of rural population in the Dasherbandi village near Dhaka, in Bangladesh it was found that 92.13% of the cases were Muslim and 7.87% of the cases were Hindus Chowdhury, Alam & Ali, 1981.

Education

From results of several epidemiological studies it was revealed that like other socio - demographic factors education had an association regarding the prevalence of psychiatric disorder, though always not statistically significant.

Mumford et al (1997) in a community survey in Punjab reported a clear association between lower education with greater risk of psychiatric disorder.

On the other hand, Giel & VanLuijk et al (1969), found no correlation between psychiatric morbidity and educational level in an epidemiological study in Ethiopia.

From majority of the epidemiological studies it was found that the lower educational level was greater the prevalence of psychiatric morbidity although always not strongly correlated.

Islam, Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health and research and they found the majority of the cases were illiterate.

In this way most of the studies noticed that the prevalence of psychiatric disorder were more among the lower educated people.

Occupation

In general, the prevalence of psychiatric morbidity was detected more among the unemployed group of the population.

In the national psychiatric morbidity surveys of Great Britain, Jenkins et al (1997) found strong association between unemployment and psychiatric morbidity. The prevalence was 259/1000 of population was detected.

Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health and research and they found the cultivator groups were suffered more psychiatric problems than other occupations.

Rahim, &Islam (1996), conducted a study on psychiatry morbidity in outpatient of a general hospital in Bangladesh, they found students (28.21%) suffered more psychiatric problem than others.

Marital Status

Psychiatric disorder was more prevalent among unmarried, divorced and widowed. Although in some study there was no significant difference between unmarried or married but at the same time subjects who reported divorced or having marital discord had significantly higher rate of psychiatric morbidity (37.5%) than those who were married without conflicts or divorced.

In a survey of rural population in the Dasherbandi village near Dhaka, in Bangladesh it was found that psychiatric disorder was more prevalent among unmarried persons Chowdhury, Alam & Ali, (1981).

Areas of Residence

Jenkins et al, (1997) reported over all higher rate of psychiatric disorder among the urban dwellers than that of the rural, in the national psychiatric morbidity survey in UK. Similar finding was observed in David Mumfords study in India.

Halen et al, (1991) in a three years follow up study of psychiatric morbidity in urban and rural primary care in UK, found urban patients were three times more likely to be admitted to psychiatry hospital, six times more likely to be admitted as day patients and had significantly greater numbers of psychiatric outpatient appointment than those of rural practice.

Islam, Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health and research and they found higher rate of psychiatric disorder among the urban cases than those of rural cases.

Rahim & Islam (1996) conducted a study on psychiatry morbidity in outpatient of a general hospital in Bangladesh, they found higher rate of psychiatric disorder among the rural cases than the urban cases. Prevalence has been found to be higher in urban than the rural areas in various studies.

Socioeconomic Status

The findings of community survey in Puerto Rico was alarming insofar as the rates of disorder impact more heavily on the children proceeding from families of lower SES.

From findings of many epidemiological studies it was observed that lower income group of the population suffer more from common mental disorder than the middle and higher income group of people.

Penayo (1990), found strong association between lower family income and higher risk for developing minor mental disorder in Nicaragua.

Islam, Mullick & Khanam (1993) conducted a study on socio-demographic characteristics and psychiatry morbidity of outpatient in institute of mental health

and research and they showed maximum psychiatric cases (51.40%) were in lower income group.

Family History of Psychiatric Disease

Family history of psychiatric disease in the first degree relatives accounted an increased familial risk for such psychopathology. In a study on psychiatric population in a medical college hospital in Bangladesh Roy, Sarker, Islam, Rahman, & Mamun (1995) detected 16.5% patients who had family history of psychiatric disease.

1.10 Justification of The Study

Treatment of patients of mental disorders in hospitals and clinics is relatively recent phenomenon in Bangladesh. The exact statistics of mentally disordered people still remains unknown. Evidence exists from few hospital or clinic based studies, which have been discussed in this chapter. These studies reflects that there is considerable amount of mental disorder patients in our country both in urban and rural communities and it is not less than what has been reported in the other countries. The only community survey in Bangladesh on psychiatric morbidity was carried out at Dasherbandi, Dhaka and it was found that 6.5% of the population was suffering from psychiatric disorders (Chowdhury, Alam and Ali 1981)

Similarly we do not have any information regarding the number of people suffering from various kinds of mental illness. In the other words we do not know the

distribution of various types of mental disorders such as-schizophrenia, mood disorder, anxiety disorder, somatoform disorder etc. Even the distribution of patients treated in the hospitals and clinics are not known. The kind of treatment they get in the hospitals and the rate of prognosis or cure etc, and the effectiveness of different treatment methods are also in the dark. This study would help in the following ways:

- 1.This study would hopefully act as a useful guide to find out the actual situation of psychiatric morbidity in our country and would stimulate further research in this aspect.
- 2.This study try to explore the pattern of mental disorders among the attenders of psychiatric department through which one can be able to get picture of the mental health situation of the country.
- 3.This study would work as a valuable research tool for the researchers in Bangladesh.
- 4.This study may act as a useful guideline in future for health planners to integrate mental health services in the community.

1.11 Aim of The Study

The aim of this study was to explore the situation of mental disorders of psychiatric patients attending psychiatric department of the hospitals and clinics of Bangladesh.

1.12 Objectives of The Study

The objectives of the present study were

- 1.To find out different diagnostic categories of mental disorders among patients attending the psychiatric department of the hospitals and clinics of Bangladesh.
- 2.To observe the distribution of psychiatric patients attending different hospitals and clinics of Bangladesh.
- 3.To estimate the monthly rate of psychiatric patients seeking treatment in hospitals and clinics of Bangladesh.
- 4.To estimate the prevalence rate of mental disorders in Bangladesh on the basis of data obtained from psychiatric department of the hospitals and clinics.
- 5.To find out the distribution of psychiatric cases in hospitals and clinics according to some socio demographic characteristics (gender, age and religion) and to assess (gender and age) their relationship.

CHAPTER – 2

METHODOLOGY

METHODOLOGY

This is a descriptive type of study, done on people who attended the psychiatry department of the government hospitals and clinics in Bangladesh. Prior to the commencement of the study, permission was taken from the concerned authorities of ten hospitals and two private clinics in Bangladesh. The researcher personally visited the Directors of hospitals and clinics, head of the psychiatry department, medical officers and staffs of selected hospitals and clinics. The design and aim of the study were thoroughly explained to the concerned authorities to obtain information regarding the number of people suffering from various kinds of mental disorders.

2.1 Study Population

The population of the study was selected from the psychiatry outpatient and in-patient department of ten hospitals and two private clinics in Bangladesh. Data were collected from the relevant patients' register, maintained by the hospitals and clinics.

The study includes children and adult (male and female) patients attending psychiatry outpatient and in-patient department of the hospitals and clinics of Bangladesh, who had a clinical diagnosis of psychiatric disorder. Psychiatrists who were working in those hospitals and clinics, made diagnosis and treated the patients.

A total of 32180 patients attended the psychiatry outpatient and in-patient department of the hospitals and clinics. Among 32180 patients 21398 were males and 10782 were females.

2.2 Place of Study

The places of the study in this thesis were selected in three stages. In the first stage, 16 Government Medical College Hospitals and 6 Private Clinics (where the psychiatry treatments are available) were selected. In the second stage, the researcher selected those hospitals and clinics where five years data were available (as five years data were not available in most of the hospitals and clinics in Bangladesh). There after in the third stage, the researcher selected those hospitals and clinics where data were available from January, 1999 to June, 2001. Finally 10 government medical college hospitals and 2 private clinics were selected from the total number of the hospitals and clinics.

Table 3 Name and Place of the hospitals and clinics.

Name of the hospital/Clinic	Place of the hospital/clinic
Dhaka Medical College Hospital, (DMCH).	Dhaka
Bangabandhu Shaikh Mujib Medical University, (BSMMU).	Dhaka
Sir-Salimullah Medical College, Mitford Hospital, (SSMCH).	Dhaka
Mymensingh Medical College Hospital, (MMCH).	Mymensingh
Chittagong Medical College Hospital, (CMCH).	Chittagong
Sylhet M.A.G. Osmani Medical College Hospital, (SMCH).	Sylhet
Sher-E-Bangla Medical College Hospital, Barishal, (BMCH).	Barishal
Rajshahi Medical College Hospital, (Raj.MCH).	Rajshahi
Rangpur Medical College Hospital, (Rang.MCH).	Rangpur
Pabna Mental Hospital, (PMH).	Pabna
Dhaka Monorog Clinic, (DMC).	Dhaka
Monon Psychiatric Hospital, (MPH).	Dhaka

2.3 Justification for Selecting The place of Study

The study was carried out in the hospitals and clinics of Bangladesh mentioned above. Though the sample size was smaller in comparison to general population, to ensure representative participation of the sample size, the government hospitals and clinics were taken because the government hospitals and clinics were distributed throughout the country. Government Medical College Hospital is the only big hospital in a district. Therefore, people from all social background naturally seek their necessary treatment from the government hospitals and clinics. It may be thus,

assumed that the patients of the government hospitals and clinics represent the general population for the particular area of the country. So the sample was nearly similar to the distribution of general population. Each hospitals and clinics (excluding Rajshahi Medical College Hospital) have an inpatient department and a minimum of six beds for psychiatric patients. Pabna Mental Hospital has 400 beds and is the only specialized hospital for psychiatry in our country.

Table-4: Number of beds for psychiatric patients in the hospitals and clinics

Name of the hospital/clinic	Total No. of Bed	No. of Male Bed	No. of Female Bed
Dhaka Medical College Hospital	6	2	4
Bangabandhu sheikh Mujib Medical University	24	16	8
Sir-Salimullah Medical College, Mitford Hospital	10	0	10
Mymensingh Medical College Hospital	12	10	2
Chittagong Medical College Hospital	20	15	5
Sylhet M.A.G. Osmani Medical College Hospital	12	7	5
Sher-E-Bangla Medical College Hospital-Barishal	16	10	6
Rajshahi Medical College Hospital	0	0	0
Rangpur Medical College Hospital	19	15	4
Pabna Mental Hospital	400	280	120
Dhaka Monorog Clinic,	60	42	18
Monon Psychiatric Hospital,	26	18	8
Total no	605	415	190

2.4 Instrument Used

A proforma for collecting history of psychiatric patients has been designed for the purpose of the study. It consisted of socio-demographic information e.g.- gender, age, religion, occupation, education, marital status etc. It also included the family history of the patient, source of referral, diagnosis and the treatment outcome of the patient (given in Appendix-1). DSM-IV was used to diagnose the cases. American Psychiatric Association published DSM-IV. It is used for clinical diagnosis and for all research purposes.

2.5 Time Range of Collected Data

Data were collected from January 1999 to June 2001.

2.6 Procedure of Data Collection

Data were collected from ten hospitals and two clinics of Bangladesh. The aim and methods of the study was explained to the concerned authorities and a written permission was obtained of the hospitals and clinics. The researcher personally visited the study places and collected data from nine hospitals and two clinics. Three research assistants were taken in this study to help the researcher. They were properly trained before they started collecting the data. Relevant ethical issues were maintained during the collection of data.

An instrument was prepared for collecting data and collected those data which were available according to the research proforma. Data collection was carried out into three-stage procedure.

In stage one all data were collected from the patients' register. And only that information was collected which was recorded in the register.

In stage two the researcher selected the cases from the registration number of the register and checked to avoid the repetition by looking at the patient's age, sex, religion, residence and diagnosis of the patients.

In stage three, repeated cases and data where gender, age and diagnosis were not available, have been excluded.

2.7 Duration of The Study

The present study was conducted during the period of June 2001 to June 2002.

2.8 Limitation In The Availability ofThe Data

There were some limitations in the availability of the data. In most of the hospitals and clinics data were not available according to the research proforma. For this reason it was not possible to collect data in respects of all the patients. Some of the hospitals (SSMCH, SMCH, BMCHB, MMCH) inpatient data was not available and Raj.MCH has only outpatient department. So it was not possible to collect the inpatient data from these hospitals. According to the data collection procedure, inpatient data were collected from the inpatient register, which were available according to the research proforma. Information about treatment outcome was not available anywhere except DMC. Names of the patients were recorded both in inpatient and outpatient register. Therefore the inpatient data was excluded to avoid

repetition of the cases. One of the hospitals and two clinics (PMH, DMC and MPH) did not maintain outpatient register for psychiatric patients. Huge number of patients attended the outpatient department of PMH, because PMH is a specialized hospital in Bangladesh. Within a few hours they would treat a lot of patients in the outpatient department. It becomes very difficult for them to maintain register for outpatient. For this reason they did not maintain the outpatient register.

Data were not available for the year 1999 (Jan-Dec) and 2000 (Jan-Dec) in SSMCH. Data were not available for the last four months of 1999 (Sep-Dec) and last two months of 2001 (Nov-Dec) in DMCH. Data were not available for the first six months of 1999 (Jan-Jun) and last month of 1999 (Dec) and first month of 2000 (Jan) in BMCH. Data were not available for the first four months of 1999 (Jan-Apr) and last month of 1999 (Dec), first two months of 2000 (Jan-Feb) and last two months of 2001 (May-Jun) in Raj.MCH.

Clinics for psychiatric patients, which were established before the year 1999, are not available more outside Dhaka. Whatever clinics there are, do not maintain register for their patients. Thus it was not possible to collect data from the clinics. For this reason, only two clinics that situated in Dhaka were selected as a place of study.

2.9 Data Analysis

Data analysis was done in this study by using computer software “Statistical Package for the Social Science (SPSS)”.

2.10 Variables

All analytical activities were done using the following variables and the following operational definitions were used in this study:

2.10.1 Dependent Variable

Mental Disorder

The diagnostic criteria for current mental disorders, according to DSM-IV were termed as the cases of mental disorders. The researcher consulted with a renowned psychiatrist, a clinical psychologist and a trainee clinical psychologist. Sub diagnostic categories are forming according to major diagnostic category.

2.10.2 Independent Variables

Gender

Male - A person who is male or boy.

Female - A person who is female or girl.

Age

The age was recorded, stated by the persons concerned. Thus a person whose age was 5 years 6 months was recorded as 6 years. The age group was divided according to the phases of life (Hurlock, 1980). The age of the patient was range of this study into the following groups:

Childhood (1-12 years) – Childhood is generally taken in consideration from 1 years to 12 years.

Adolescence (13-18 years) – Adolescence extends from age 13 years to 18 years.

Adult (19-40 years) – Early adulthood extends from age 19 years to 40 years.

Middle Age (41-60 years) – Middle age is generally considered to extend from age 41 years to 60 years.

Elderly (61 years +) – Old age begins at 61 limiting up to death.

Religion

Muslim - A person who is Muslim.

Hindu - A person who is Hindu.

Buddhism - A person who is Buddhist.

Christian - A person who is Christian.

Social Background

Urban: The person who had been living in urban areas.

Rural: The person who had been living in rural areas.

Occupation

Any activity or activities of person(s) involving his /her earning of livelihood is considered as occupation. The occupation was categorized into following groups:

Student: Any person who is studying in schools, colleges, madrasas, medical colleges, engineering universities, general university etc.

Service: A person who works for a public and private employer and receives remuneration in wages, salary or pay in kind e.g. polices, doctors, engineers, teachers etc.

Unemployed: A person who is not doing any job or work.

Business: A person who involves in sale of goods and commodities as wholesale and retail trade; and owner of restaurants and hotels and other such establishments.

Housewife: Married women who are involved in cooking, child rearing and other miscellaneous household activities at their own houses and not paid for the job.

Farmer: Any person who cultivates any crop.

Day labourer: Any person who is paid on daily basis.

Retired person: Any person who retired from his/her job.

Others: Any person who is doing work other than the above e.g. drivers, rickshaw pullers, hawkers, servants etc.

Education

Illiterate: The person having no schooling or formal education is considered as illiterate. They could neither write nor read or just can write their names.

Primary (Class I-V): A person who had completed or continuing any class from one to five classes.

Secondary (Class VI-X): A person who had completed or continuing any class from six to ten classes.

Secondary School Certificate (S.S.C): A person who had passed S.S.C. Exam or continuing any class from eleven to twelve classes.

Higher Secondary Certificate (H.S.C): A person who had passed H.S.C. Exam or continuing any class of B.A, B.S.C, Honours, Medical, Engineering classes.

Graduate: A person who had passed degree Exam or continuing any class of M.A.

Post Graduate: A person who had passed M.A. level Exam or P.H.D.

Marital Status

Unmarried: A person who did not marry.

Married: A person who is married.

Separated: When husband and wife had been consensually living in separate places was considered as separated.

Divorced: When husband and wife had been legally separated was considered as divorced.

Widowed/ widower: Any person who lost his/her spouse due to death and did not marry again was considered as widow, and the man who lost his wife due to death and did not marry again was considered as widower.

Socio-Economic Status

The socio-economic status of the people was categorized into the following groups as recorded in hospitals and clinics.

Upper Class - A person who comes of upper economic background.

Upper Middle Class - A person who comes of upper middle economic background.

Middle Class - A person who comes of middle economic background.

Lower Middle Class - - A person who comes of lower middle economic background.

Low Class - A person who comes from low economic background.

Family History of Psychiatric Disorder

It means the presence or having any history of psychiatric disorder or absence among the patients' relatives.

Source of Referral

It means the patient who was referred by psychiatrist or G.P or other department of the hospitals or other hospital, by himself / herself or by family members or by any other relatives. Jail authorities referred some of the prisoners.

Treatment Outcome

It refers to whether the outcome of the treatment was improved or not improved.

CHAPTER – 3

RESULT

RESULTS

The results are based on the data obtained from the records of patients, who attended the psychiatry department of 10 hospitals and 2 clinics in Bangladesh from January 1999 to June 2001. A total number of 32180 patients attending during this period. Of them 3567 (11.08%) were inpatients and 28613 (88.91%) were out patients. A descriptive account of these data is provided in tables and figures according to diagnostic categories of socio demographic characteristics, family history, source of referral and treatment outcome. The male female ratio was 2:1 and the mean age of the patients was 30.

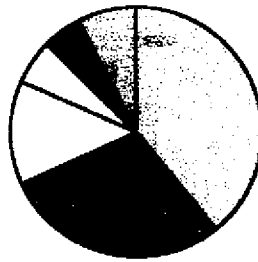
3.1 Different Diagnostic Categories of Mental Disorders Among Psychiatric Patients in Hospitals (10) and Clinics (2) of Bangladesh.

Distribution of psychiatric patients according to diagnostic categories is presented in table – 5, 6 (see Table –6 are given in Appendix –3) and the major categories are graphically shown in figure - 1.

Table – 5 and 6 shows that majority of the attenders of the hospitals and clinics in Bangladesh had been suffering from schizophrenia and other psychotic disorders (12631; 39.251%), mood disorders (9309; 28.928%), anxiety disorders (4329; 13.452%), somatoform disorders (1884; 5.855%), and substance related disorders (1605; 4.988%).

Table -5: Distribution of psychiatric patients according to diagnostic categories.

Diagnostic Categories	Number	Percentage
Mental Retardation	480	1.492%
Learning Disorders	1	0.003%
Motor Skills Disorders	1	0.003%
Communication Disorders	34	0.106%
Pervasive Developmental Disorders	50	0.155%
Attention Deficit and Disruptive Behaviour Disorders	115	0.357%
Tic Disorders	1	0.003%
Elimination Disorders	21	0.065%
Other Disorders of Infancy, Childhood and Adolescence	5	0.016%
Schizophrenia and Other Psychotic Disorders	12631	39.251%
Mood Disorders	9309	28.928%
Anxiety Disorders	4329	13.452%
Somatoform Disorders	1884	5.855%
Dissociative Disorders	14	0.044%
Sexual and Gender Identity Disorders	115	0.357%
Sleep Disorders	108	0.336%
Personality Disorders	55	0.171%
Adjustment Disorders	152	0.472%
Substance Related Disorders	1605	4.988%
Delirium, Dementia, Amnestic and Other Cognitive Disorders	171	0.531%
Impulse Control Disorders	9	0.028%
Other Conditions That May Be a Focus of Clinical Attention	16	0.050%
Neurological Conditions	501	1.557%
Drug Reactions	106	0.329%
Others	467	1.451%
Group Total	32180	100.000%



□ SOPD = Schizophrenia and Other Psychotic Disorder ■ MD = Mood disorder
 □ AD = Anxiety Disorder □ SD = Somatoform Disorder
 ■ SRD = Substance Related Disorder □ OD = Other Disorders

Figure -1: Distribution of psychiatric patients according to diagnostic category in hospitals(10) and clinics(2) of Bangladesh

3.2 Distribution of Psychiatric Patients According to Multiaxial Classification.

The distribution of psychiatric patients according to DSM-IV multiaxial classification is presented in table - 7 and is graphically shown in figure – 2.

Table-7: Distribution of psychiatric patients according to DSM-IV multiaxial classification.

Multiaxial Classification of DSM-IV	Number	Percentage
Axis – I	30571	95.000%
Axis – II	535	1.663%
Other Group*	1074	3.337%
Group Total	32180	100.000%

*Other groups (Neurological Condition, Drug Reaction, and Others).

Table – 7 shows that (30571; 95.000%) patients belonged to Axis – I, (535; 1.663%) patients belonged to Axis – II, and (1074; 3.337%) patients belonged to other group according to DSM-IV multiaxial classification.

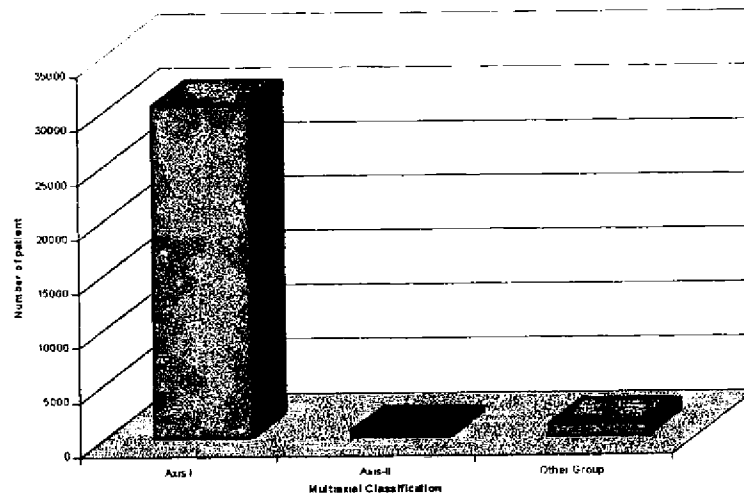


Figure - 2: Distribution of psychiatric patients according to DSM-IV multiaxial classification

4.3 Distribution of Psychiatric Patients in Hospitals (10) and Clinics (2) of Bangladesh.

The distribution of psychiatric patients is presented in table – 8, 9 and graphically shown in figure - 3.

Table-8 shows that, the largest number of patients came from CMCH (6767; 21.029%), second largest number of patients was found in BSMMUH (6265;

19.469%) and the lowest number of patients was found in Rang.MCH (1283; 3.987%) among the hospitals. This table also shows that largest number of patients came from DMC (1809; 5.622%) and the lowest number of patients was found in MPH (308; 0.957%) among the clinics.

Chi – square value of these data was found highly significant ($\chi^2=10463.152$; $df = 264$; $p < .001$). This indicates that psychiatric patients were significantly different in different hospitals and clinics.

Table –8: Distribution of psychiatric patients in 10 hospitals and 2 clinics of Bangladesh.

Name of the Hospitals and Clinics.	GENDER				Group Total	
	Male		Female		No.	%
	No.	%	No.	%		
DMCH	1118	5.225%	601	5.574%	1719	5.342%
BSMMUH	3920	18.319%	2345	21.749%	6265	19.469%
SSMCH	310	1.449%	289	2.681%	599	1.861%
CMCH	4330	20.236%	2437	22.602%	6767	21.029%
SMCH	3176	14.843%	1235	11.454%	4411	13.707%
Raj.MCH	1380	6.449%	818	7.587%	2198	6.830%
BMCH	1098	5.131%	717	6.650%	1815	5.640%
Rang.MCH	901	4.211%	382	3.543%	1283	3.987%
MMCH	2233	10.436%	1323	12.270%	3556	11.050%
PMH	1262	5.898%	188	1.744%	1450	4.506%
DMC	1452	6.786%	357	3.311%	1809	5.622%
MPH	218	1.019%	90	0.835%	308	0.957%
Group Total	21398	100.000%	10782	100.000%	32180	100.000%

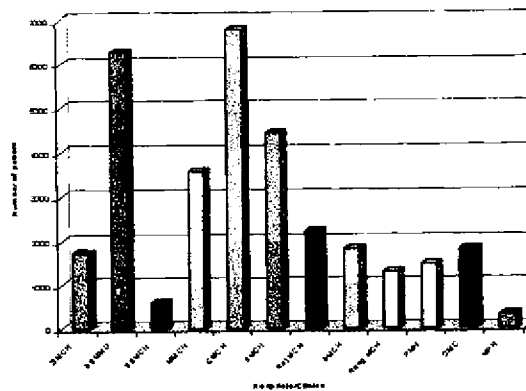


Figure - 3: Distribution of psychiatric patients in hospitals (10) and clinics (2) of Bangladesh

Table-9 shows that, in BSMMU the number of patients suffering from learning disorders was (1; 0.016%), motor skills disorders (1; 0.016%), communication disorders (23; 0.367%), pervasive developmental disorders (30; 0.479%), attention deficit and disruptive behaviour disorders (59; 0.942%), mood disorders (1981; 31.620%), anxiety disorders (1274; 20.335%), somatoform disorders (673; 10.742%), sleep disorders (34; 0.543%), personality disorder (15; 0.239%), delirium, dementia, amnestic and other cognitive disorders (80; 1.277%), others (126; 2.011%), was found to be more than that in other hospitals and clinics.

In CMCH the number of patients suffering from mental retardation was (123; 1.818%), schizophrenia and other psychotic disorders (3461; 51.145%), drug reaction (26; 0.384%) was found to be more than that in other hospitals and clinics.

In Raj.MCH the number of patients suffering from dissociative disorders was (6; 0.273%) and neurological conditions (104; 4.732%), was found to be more than in other hospitals and clinics.

In BMCH the number of patients suffering from sexual and gender identity disorders was (75; 4.132%), impulse control disorders (5; 0.275%), other conditions that may be a focus of clinical attention (9; 0.496%) was found to be more than that in other hospitals and clinics.

In MMCH the number of patients suffering from adjustment disorders (68; 1.912%) was found to be more than that in other hospitals and clinics.

In DMC the number of patients suffering from substance related disorders (658; 36.374%) was found to be more than that in other hospitals and clinics.

Table : 9 Distribution of psychiatric patients according to diagnostic categories in 10 hospitals and 2 clinics in Bangladesh.

Diagnostic Category	NAME OF THE HOSPITALS & CLINICS									
	DMCH		BSMMUH		SSMCH		CMCH		SMCH	
	No.	%	No.	%	No.	%	No.	%	No.	%
Mental Retardation	41	2.385%	101	1.612%	6	1.002%	123	1.818%	36	.816%
Learning Disorders	0	.000%	1	.016%	0	.000%	0	.000%	0	.000%
Motor Skills Disorder	0	.000%	1	.016%	0	.000%	0	.000%	0	.000%
Communication Disorders	1	.058%	23	.367%	0	.000%	4	.059%	1	.023%
Pervasive Developmental Disorders	0	.000%	30	.479%	1	.167%	6	.089%	2	.045%
Attention-Deficit and Disruptive Behavior Disorder	5	.291%	59	.942%	1	.167%	10	.148%	10	.227%
Tic Disorders			1	.016%	0	.000%				
Elimination Disorders	1	.058%	3	.048%	0	.000%	12	.177%	1	.023%
Other Disorders of Infancy, Childhood and Adolescence	1	.058%	3	.048%	0	.000%	0	.000%	0	.000%
Schizophrenia and Other Psychotic Disorders	674	39.209%	1455	23.224%	245	40.902%	3461	51.145%	1894	42.938%
Mood Disorders	448	26.062%	1981	31.620%	189	31.553%	1733	25.610%	1349	30.583%
Anxiety Disorders	359	20.884%	1274	20.335%	61	10.184%	771	11.394%	455	10.315%
Somatiform Disorders	55	3.200%	673	10.742%	15	2.504%	355	5.246%	266	6.030%
Dissociative Disorders	1	.058%	0	.000%	2	.334%	0	.000%	0	.000%
Sexual and Gender Identity Disorders	13	.756%	17	.271%	0	.000%	3	.044%	0	.000%
Sleep Disorders	6	.349%	34	.543%			14	.207%	5	.113%
Personality Disorder	4	.233%	15	.239%	1	.167%	7	.103%	5	.113%
Adjustment Disorders	6	.349%	62	.990%			1	.015%	1	.023%
Substance Related Disorder	33	1.920%	205	3.272%	32	5.342%	80	1.182%	300	6.801%
Delirium, Dementia and Amnestic and Other Cognitive Disorders	7	.407%	80	1.277%	4	.668%	19	.281%	20	.453%
Impulse-Control Disorders	0	.000%	1	.016%	0	.000%	0	.000%	0	.000%
Other Conditions That May Be a Focus of Clinical Attention	0	.000%	6	.096%	0	.000%	0	.000%	0	.000%
Neurological Conditions	32	1.862%	98	1.564%	20	3.339%	68	1.005%	40	.907%
Drug Reaction	6	.349%	16	.255%	7	1.169%	26	.384%	21	.476%
Others	26	1.513%	126	2.011%	15	2.504%	74	1.094%	5	.113%
Group Total	1719	100.000%	6265	100.000%	599	100.000%	6767	100.000%	4411	100.000%

 $\chi^2=10463.152$; $df = 264$; $p<.001$.

Table : 9 (continue) Distribution of psychiatric patients according to diagnostic categories in 10 hospitals and 2 clinics in Bangladesh.

Diagnostic Category	NAME OF THE HOSPITALS & CLINICS											
	Raj.MCH		BMCH		Rang.MCH		MMCH		PMH			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Mental Retardation	61	2.775%	42	2.314%	13	1.013%	53	1.490%	0	.000%	0	.000%
Learning Disorders	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%
Motor Skills Disorder	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%
Communication Disorders	2	.091%	2	.110%	0	.000%	1	.028%	0	.000%	0	.000%
Pervasive Developmental Disorders	2	.091%	2	.110%	1	.078%	6	.169%	0	.000%	0	.000%
Attention-Deficit and Disruptive Behavior Disorder	7	.318%	7	.386%	0	.000%	16	.450%	0	.000%	0	.000%
Tic Disorders	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%
Elimination Disorders	0	.000%	1	.055%	0	.000%	3	.084%	0	.000%	0	.000%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	1	.055%	0	.000%	0	.000%	0	.000%	0	.000%
Schizophrenia and Other Psychotic Disorders	503	22.884%	850	46.832%	483	37.646%	1143	32.143%	1089	75.103%	0	.000%
Mood Disorders	552	25.114%	242	13.333%	450	35.074%	1655	46.541%	253	17.418%	0	.000%
Anxiety Disorders	588	26.752%	255	14.050%	182	14.186%	360	10.124%	2	.138%	0	.000%
Somatiform Disorders	196	8.917%	166	9.146%	51	3.975%	76	2.137%	4	.276%	0	.000%
Dissociative Disorders	6	.273%	1	.055%	0	.000%	4	.112%	0	.000%	0	.000%
Sexual and Gender Identity Disorders	2	.091%	75	4.132%	0	.000%	2	.056%	0	.000%	0	.000%
Sleep Disorders	12	.546%	28	1.543%	3	.234%	5	.141%	0	.000%	0	.000%
Personality Disorder	11	.500%	2	.110%	2	.156%	5	.141%	1	.069%	0	.000%
Adjustment Disorders	5	.227%	5	.275%	0	.000%	68	1.912%	0	.000%	0	.000%
Substance Related Disorder	73	3.321%	19	1.047%	25	1.949%	44	1.237%	57	3.931%	0	.000%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	16	.728%	14	.771%	0	.000%	10	.281%	0	.000%	0	.000%
Impulse-Control Disorders	0	.000%	5	.275%	0	.000%	0	.000%	0	.000%	0	.000%
Other Conditions That May Be a Focus of Clinical Attention	1	.045%	9	.496%	0	.000%	0	.000%	0	.000%	0	.000%
Neurological Conditions	104	4.732%	49	2.700%	28	2.182%	55	1.547%	0	.000%	0	.000%
Drug Reaction	4	.182%	2	.110%	1	.078%	11	.309%	0	.000%	0	.000%
Others	53	2.411%	38	2.094%	44	3.429%	39	1.097%	44	3.034%	0	.000%
Group Total	2198	100.000%	1815	100.000%	1283	100.000%	3556	100.000%	1450	100.000%	0	.000%

Table : 9 (continue) Distribution of psychiatric patients according to diagnostic categories in 10 hospitals and 2 clinics in Bangladesh.

Diagnostic Category	NAME OF THE HOSPITALS & CLINICS				Group Total	
	DMC		MPH		No.	%
	No.	%	No.	%		
Mental Retardation	3	.166%	1	.325%	480	1.492%
Learning Disorders	0	.000%	0	.000%	1	.003%
Motor Skills Disorder	0	.000%	0	.000%	1	.003%
Communication Disorders	0	.000%	0	.000%	34	.106%
Pervasive Developmental Disorders	0	.000%	0	.000%	50	.155%
Attention-Deficit and Disruptive Behavior Disorder	0	.000%	0	.000%	115	.357%
Tic Disorders	0	.000%	0	.000%	1	.003%
Elimination Disorders	0	.000%	0	.000%	21	.065%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	0	.000%	5	.016%
Schizophrenia and Other Psychotic Disorders	730	40.354%	104	33.766%	12631	39.251%
Mood Disorders	365	20.177%	92	29.870%	9309	28.928%
Anxiety Disorders	13	.719%	9	2.922%	4329	13.452%
Somatoform Disorders	14	.774%	13	4.221%	1884	5.855%
Dissociative Disorders	0	.000%	0	.000%	14	.044%
Sexual and Gender Identity Disorders	3	.166%	0	.000%	115	.357%
Sleep Disorders	1	.055%	0	.000%	108	.336%
Personality Disorder					55	.171%
Adjustment Disorders	2	.111%	2	.649%	152	.472%
Substance Related Disorder	658	36.374%	79	25.649%	1605	4.988%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	0	.000%	1	.325%	171	.531%
Impulse-Control Disorders	3	.166%	0	.000%	9	.028%
Other Conditions That May Be a Focus of Clinical Attention	0	.000%	0	.000%	16	.050%
Neurological Conditions	5	.276%	2	.649%	501	1.557%
Drug Reaction	11	.608%	1	.325%	106	0.329%
Others	1	.055%	2	.649%	467	1.451%
Group Total	1809	100.000%	308	100.000%	32180	100.000%

3.4 Monthly Rate of Psychiatric Patients in Hospitals (10) and Clinics (2) of Bangladesh

Monthly rate of psychiatric patients according is presented in table 10, 11 and graphically shown in figure 4.

Table – 10 shows that the highest number of patients attending the hospitals and clinics per month was in 2001 (1181; 3.669%), lowest in 2000 (983; 3.054%) and intermediate in 1999 (1108; 3.443%).

Table – 10: Monthly rate of psychiatric patients in hospitals (10) and clinics (2) of Bangladesh.

Month	Total No of Patients	Percentage of 1 Year	Total No of patients of 1 Month	Percentage of 1 Month
12 Months 1999(Jan-Dec)	13299	41.326%	1108	3.443%
12 Months 2000(Jan-Dec)	11796	36.656%	983	3.054%
6 Months 2001(Jan-Jun)	7085	44.03%	1181	3.669%

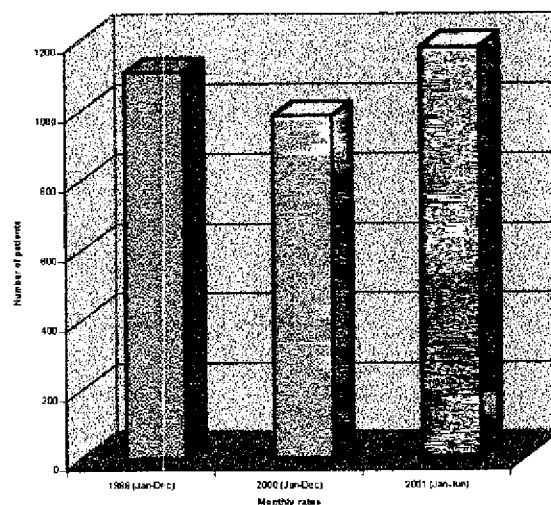


Figure - 4 Monthly rates of psychiatric patients.

Table-I1 shows that, patients with communication disorders was (19; 0.143%), schizophrenia and other psychotic disorders (5808; 43.672%), mood disorders (3647; 27.423%), adjustment disorders (73; 0.549%), delirium, dementia, amnestic and other cognitive disorders (67; 0.504%), drug reaction (62; 0.466%), others (218; 1.639%) attended the hospitals and clinics most frequently in 1999 (Jan - Dec).

Patients with mental retardation (195; 1.653%), learning disorders (1; 0.008%), pervasive developmental disorders (26; 0.220%), attention deficit and disruptive behaviour disorders (54; 0.453%), tic Disorders (1; 0.008%), elimination disorders (13; 0.110%), other disorders of infancy childhood and adolescence (3; 0.025%), anxiety disorders (1879; 15.929%), somatoform disorders (782; 6.629%), dissociative disorder (10; 0.085%), sleep disorders (60; 0.509%), substance related

disorders (649; 5.502%) and neurological conditions was (20; 1.704%) attended the hospitals and clinics most frequently in 2000 (Jan - Dec).

Patients suffering from Personality Disorder (21; 0.158%) attended the hospitals and clinics equally in 1999 (Jan - Dec) and 2000 (Jan – Dec).

Patients with Motor Skills Disorder (1; 0.014%), Sexual and Gender Identity Disorders (68; 0.960%) attended the hospitals and clinics most frequently in 2001 (Jan – June).

Table : 11 Month wise distribution of psychiatric patients according to diagnostic categories in hospitals and clinics of Bangladesh.

Diagnostic Category	MONTH						Group Total	
	12 Months 1999		12 Months 2000		6 Months 2001		No.	%
	No.	%	No.	%	No.	%		
Mental Retardation	184	1.384%	195	1.653%	101	1.426%	480	1.492%
Learning Disorders	0	.000%	1	.008%	0	.000%	1	.003%
Motor Skills Disorder	0	.000%	0	.000%	1	.014%	1	.003%
Communication Disorders	19	.143%	11	.093%	4	.056%	34	.106%
Pervasive Developmental Disorders	17	.128%	26	.220%	7	.099%	50	.155%
Attention-Deficit and Disruptive Behavior Disorder	39	.293%	54	.458%	22	.311%	115	.357%
Tic Disorders			1	.008%			1	.003%
Elimination Disorders	7	.053%	13	.110%	1	.014%	21	.065%
Other Disorders of Infancy, Childhood and Adolescence	2	.015%	3	.025%	0	.000%	5	.016%
Schizophrenia and Other Psychotic Disorder	5808	43.672%	4001	33.918%	2822	39.831%	12631	39.251%
Mood Disorders	3647	27.423%	3534	29.959%	2128	30.035%	9309	28.928%
Anxiety Disorders	1595	11.993%	1879	15.929%	855	12.068%	4329	13.452%
Somatoform Disorders	745	5.602%	782	6.629%	357	5.039%	1884	5.855%
Dissociative Disorders			10	.085%	4	.056%	14	.044%
Sexual and Gender Identify Disorders	9	.068%	38	.322%	68	.960%	115	.357%
Sleep Disorders	25	.188%	60	.509%	23	.325%	108	.336%
Personality Disorder	21	.158%	21	.178%	13	.183%	55	.171%
Adjustment Disorder	73	.549%	49	.415%	30	.423%	152	.472%
Substance Related Disorder	562	4.226%	649	5.502%	394	5.561%	1605	4.988%
Delirium, Dementia, Amnestic and Other Cognitive Disorder	67	0.504%	60	0.509%	44	0.621%	171	0.531%
Impulse Control Disorder	3	.023%	4	.034%	2	.028%	9	.028%
Other Condition that May Be a Focus of Clinical Attention	6	.045%	7	.059%	3	.042%	16	.050%
Neurological Condition	190	1.429%	201	1.704%	110	1.553%	501	1.557%
Drug Reaction	62	.466%	30	.254%	14	.198%	106	.329%
Others	218	1.639%	167	1.416%	82	1.157%	467	1.451%
Group Total	13299	100.000%	11796	100.000%	7085	100.000%	32180	100.000%

3.5 Prevalence Rate of Psychiatric Patients Seeking Treatment In Hospitals of Bangladesh in The Year 2000.

One of the objectives of this study was to estimate prevalence rate of psychiatric patients seeking treatment in hospitals and clinics of Bangladesh in the year 2000 (Jan-Dec). This was done on the basis of data obtained from 9 hospitals. Since only 2 clinics from Dhaka were covered in the present study, data obtained from clinics were excluded. The period covered for this purpose was January to December 2000 while recorded data were available in 9 hospitals. In all 11035 patients were found to attend the psychiatric department of the 9 hospitals in Bangladesh. However, in Raj.MCH, two months of data between Nov to Dec and in BMCH, one month of data January were unavailable in the year 2000. To make up for the absence of the data the number of patients for the last two months of Raj.MCH and first month of BMCH were calculated from the average of rest months (206.4) and (78.27) respectively and was found to be a total of 285. So, adding the 285 patients, the new total number of the patients becomes 11320. The total population of Bangladesh is 12,92,47,233 according to the 2001 population census (formula used for determining prevalence rate given in Appendix - 2).

Table - 12: The prevalence rate of psychiatric patients seeking treatment in 9 hospitals of Bangladesh in the year 2000.

Number of patients	Prevalence per lakh
11320	8.76

Table-12 shows that the prevalence rate of psychiatric patients seeking treatment in the 9 hospitals of Bangladesh was found to be 8.76 per lakh.

Table-13: The prevalence rate of psychiatric patients according to diagnostic categories in the hospitals of Bangladesh in the year 2000.

Diagnostic Categories	Number	Prevalence per lakh	Prevalence rate of total No. of patient
Schizophrenia and Other Psychotic Disorders	3781	2.93	33.40%
Mood Disorders	3434	2.66	30.34%
Anxiety Disorders	1939	1.50	17.13%
Somatoform Disorders	800	0.62	7.08%
Substance Related Disorders	386	0.30	3.41%
Mental Retardation	202	0.15	1.78%
Other Disorders	778	0.60	6.87%

Table -13 shows that the prevalence rate was most among psychiatric patients who have been suffering from schizophrenia and other psychotic disorders (3781; 2.93 per lakh), mood disorders (3434; 2.66 per lakh), anxiety disorders (1939; 1.50 per lakh), somatoform disorders (800; 0.62 per lakh), substance related disorders (386;

0.30 per lakh), mental retardation (202; 0.15 per lakh), other disorders (778; 0.60 per lakh).

This table also shows that, the prevalence rate of total number of patients in 9 hospitals of Bangladesh in the year 2000 was most among the psychiatric patients who have been suffering from schizophrenia and other psychotic disorders (33.40%), mood disorders (30.34%), anxiety disorders (17.13%), somatoform disorders (7.08%), substance related disorders (3.41%), mental retardation (1.78%) and other disorders (6.87%).

3.6 Some Socio Demographic Characteristics of Psychiatric Patients in Hospitals (10) and Clinics (2) of Bangladesh.

3.6.1 Diagnostic Categories Among the Psychiatric Patients According to Gender.

Distribution of male and female psychiatric patients according to diagnostic categories is presented in table – 14, 15 and graphically shown in figure - 5.

Table - 14 shows that majority of the patients were male (21398; 66.5%) and the rest number of patients were female (10782; 33.5%).

Table 14: Distribution of psychiatric patients according to their gender.

Gender	Number	Percentage
Male	21398	66.5%
Female	10782	33.5%
Group Total	32180	100.000%

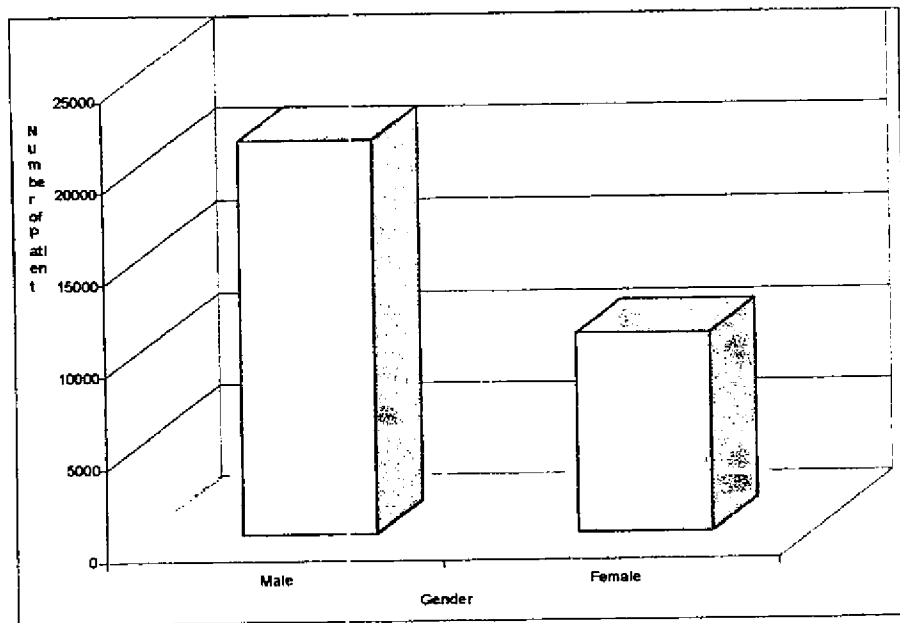
**Figure - 5: Distribution of male and female psychiatric patients.**

Table - 15 shows that, mental retardation (329; 1.538%), communication disorders (30; 0.140%), pervasive developmental disorders (39; 0.182%), attention deficit and disruptive behaviour disorders (89; 0.416%) and elimination disorders (16; 0.075%), schizophrenia and other psychotic disorders (8558; 39.994%), mood disorders (5972; 27.909%), anxiety disorders (2942; 13.749 %), sleep disorders (92; 0.430%), personality disorder (40; 0.187%), substance related disorders (1555; 7.267%), delirium, dementia, amnesic and other cognitive disorders (115; 0.537%),

neurological conditions (316; 1.477%), drug reaction (66; 0.308%), and others (314; 1.467%), were more prevalent in males than females.

Other disorders of infancy childhood and adolescence (3; 0.028%), somatoform disorders (1151; 10.675%), dissociative disorders (13; 0.121%), and adjustment disorder (91; 0.844%), were more prevalent among females than males.

Learning Disorders (1; 0.005%), motor skills disorder (1; 0.005%), tic disorders (1; 0.005%), sexual and gender identity disorders (115; 0.537%), were only found among male patients.

Chi - Square value of these data was found highly significant ($\chi^2=2019.010$; $df = 72$; $P < .001$). It shows that diagnostic categories varied significantly according to gender. The highest numbers of mental disorders were found to occur in male patients.

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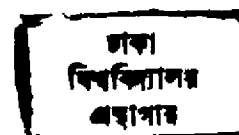


Table – 15: Distribution of Male and Female psychiatric patients according to diagnostic categories in hospitals and clinics of Bangladesh.

Diagnostic Category	GENDER				Group Total	
	Male		Female		No.	%
	No.	%	No.	%		
Mental Retardation	329	1.538%	151	1.400%	480	1.492%
Learning Disorders	1	.005%	0	.000%	1	.003%
Motor Skills Disorder	1	.005%	0	.000%	1	.003%
Communication Disorders	30	.140%	4	.037%	34	.106%
Pervasive Developmental Disorders	39	.182%	11	.102%	50	.155%
Attention-Deficit and Disruptive Behavior Disorder	89	.416%	26	.241%	115	.357%
Tic Disorders	1	.005%	0	.000%	1	.003%
Elimination Disorders	16	.075%	5	.046%	21	.065%
Other Disorders of Infancy, Childhood and Adolescence	2	.009%	3	.028%	5	.016%
Schizophrenia and Other Psychotic Disorders	8558	39.994%	4073	37.776%	12631	39.252%
Mood Disorders	5972	27.909%	3337	30.950%	9309	28.928%
Anxiety Disorders	2942	13.749%	1387	12.865%	4329	13.452%
Somatiform Disorders	733	3.426%	1151	10.675%	1884	5.855%
Dissociative Disorders	1	.005%	13	.121%	14	.044%
Sexual and Gender Identify Disorders	115	.537%	0	.000%	115	.357%
Sleep Disorders	92	.430%	16	.148%	108	.336%
Personality Disorder	40	.187%	15	.139%	55	.171%
Adjustment Disorders	61	.285%	91	.844%	152	.472%
Substance Related Disorder	1555	7.267%	50	.464%	1605	4.988%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	115	.537%	56	.519%	171	.531%
Impulse-Control Disorders	7	.033%	2	.019%	9	.028%
Other Conditions That May Be a Focus of Clinical Attention	3	.014%	13	.121%	16	.050%
Neurological Conditions	316	1.477%	185	1.716%	501	1.557%
Drug Reaction	66	.308%	40	.371%	106	.329%
Others	314	1.467%	153	1.419%	467	1.451%
Group Total	21398	100.000%	10782	100.000%	32180	100.000%

 $\chi^2 = 2019.010$; $df = 72$; $P < .001$

3.6.2 Diagnostic Categories Among the Psychiatric Patients According to Age.

The distribution of psychiatric patients according to diagnostic categories and age in hospitals and clinics is presented in table-16, 17 and graphically shown in figure - 6.

Table - 16 shows that the highest number of patients were in the age of 19-40years (22567; 70.127%) adult patients suffered more mental disorders than other age group and the lowest was the 61+ years age group (528; 1.640%) among the total number of patients.

Table –16: Distribution of psychiatric patients according to their age.

Age	Number	Percentage
Childhood (1 - 12 Years)	862	2.678%
Adolescence (13 - 18Years)	3962	12.311%
Adult (19 - 40 Years)	22567	70.127%
Middle Age (41- 60 Years)	4261	13.241%
Elderly (60 + Years)	528	1.640%
Total	32180	100.000%

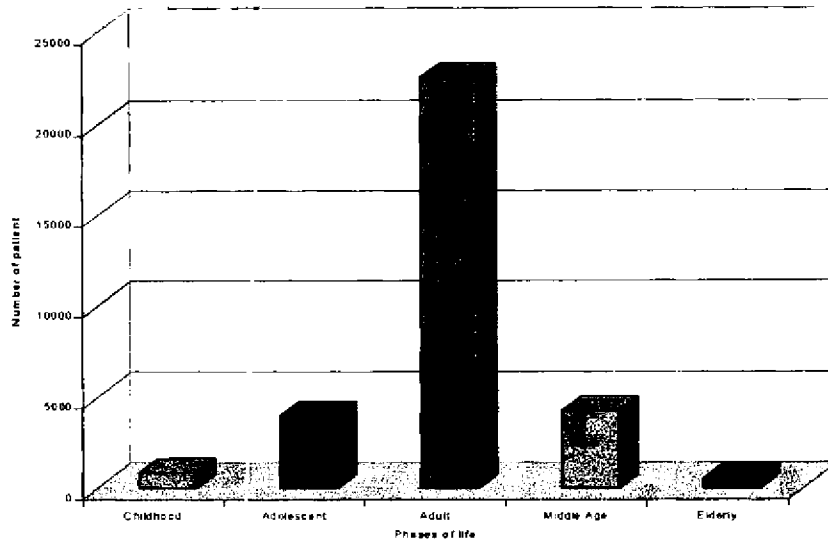


Figure - 6: Distribution of psychiatric patients according to their age

Table 17 shows that mental retardation was (192; 22.274%), learning disorders (1; 0.116%), motor skills disorders (1; 0.116%), pervasive developmental disorders (40; 4.640%), attention deficit and disruptive behavior disorders (85; 9.861%), tic disorders (1; 0.116%), elimination disorders (12; 1.392%), others disorders of infancy, childhood and adolescence (5; 0.580%), were more common during childhood (1years to 12 years).

Communication disorders (18; 0.080%), schizophrenia and others psychotic disorders (9304; 41.228%), mood disorders (6325; 28.028%), anxiety disorders (3209; 14.220%), somatoform disorders (1215; 5.384%), dissociative disorders (7; 0.031%), sexual and gender identity disorders (96; 0.425%), sleep disorders (70; 0.310%), personality disorder (37; 0.164%), adjustment disorders (93; 0.412%), substance related disorders (1457; 6.456%), impulse control disorders (5; 0.022%), other condition that may be a focus of clinical attention (9; 0.040%), neurological

conditions (238; 1.055%), drug reaction (71; 0.315%) and others (269; 1.192%), were more common among adult (19 years to 40 years) patients.

Delirium, dementia, amnesic and other cognitive disorders (75; 1.760%) was a common disorder for elderly (61+) patients.

Chi - square value of these data was found highly significant ($\chi^2=12094.161$; $df=96$; $P<.001$). It shows that the occurrence of mental disorders differed significantly as a function of different phases of life. The highest number of mental disorders were found to occur in adulthood.

Table -17: Distribution of psychiatric patients according to diagnostic categories and age in hospitals and clinics.

Diagnostic Category	Age										Group Total	
	Childhood (1-12)		Adolescent (13-18)		Adult (13-40)		Middle Age (41-60)		Elderly (61+)		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%		
Mental Retardation	192	22.274%	153	3.862%	133	.589%	2	.047%	0	0.00%	480	1.492%
Learning Disorders	1	.116%	0	.000%	0	.000%	0	.000%	0	.000%	1	.003%
Motor Skills Disorder	1	.116%	0	.000%	0	.000%	0	.000%	0	.000%	1	.003%
Communication Disorders	7	.812%	8	.202%	18	.080%	1	.023%	0	.000%	34	.106%
Pervasive Developmental Disorders	40	4.640%	7	.177%	3	.013%	0	.000%	0	.000%	50	.155%
Attention-Deficit and Disruptive Behavior Disorder	85	9.861%	30	.757%	0	.000%	0	.000%	0	.000%	115	.357%
Tic Disorders	1	.116%			0	.000%	0				1	.003%
Elimination Disorders	12	1.392%	6	.151%	3	.013%	0	.000%	0	.000%	21	.065%
Other Disorders of Infancy, Childhood and Adolescence	5	.580%	0	.000%	0	.000%	0	.000%	0	.000%	5	.016%
Schizophrenia and Other Psychotic Disorders	116	13.457%	1500	37.860%	9304	41.228%	1562	36.658%	149	28.220%	12631	39.251%
Mood Disorders	62	7.193%	918	23.170%	6325	28.028%	1792	42.056%	212	40.152%	9309	28.928%
Anxiety Disorders	75	8.701%	510	12.872%	3209	14.220%	492	11.547%	43	8.144%	4329	13.452%
Somatoform Disorders	94	10.905%	404	10.197%	1215	5.384%	162	3.802%	9	1.705%	1884	5.855%
Dissociative Disorders	1	.116%	4	.101%	7	.031%	2	.047%	0	.000%	14	.044%
Sexual and Gender Identify Disorders	0	.000%	16	.404%	96	.425%	3	.070%	0	.000%	115	.357%
Sleep Disorders	9	1.044%	11	.278%	70	.310%	14	.329%	4	.758%	108	.336%
Personality Disorder			15	.379%	37	.164%	2	.047%	1	.189%	55	.171%
Adjustment Disorders	8	.928%	35	.883%	93	.412%	15	.352%	1	.189%	152	.472%
Substance Related Disorder	6	.696%	102	2.574%	1457	6.456%	39	.915%	1	.189%	1605	4.988%
Delirium, Dementia and Amnestic and Other Cognitive Disorders	0	.000%	0	.000%	5	.022%	75	1.760%	91	17.235%	171	.531%
Impulse-Control Disorders	0	.000%	4	.101%	5	.022%	0	.000%	0	.000%	9	.028%
Other Conditions That May Be a Focus of Clinical Attention	1	.116%	5	.126%	9	.040%	1	.023%	0	.000%	16	.050%
Neurological Conditions	101	11.717%	134	3.382%	238	1.055%	25	.587%	3	.568%	501	1.557%
Drug Reaction	2	0.232%	21	0.530%	71	.315%	12	.282%	0	.000%	106	0.329%
Others	43	4.988%	79	1.994%	269	1.192%	62	1.455%	14	2.652%	467	1.451%
Group Total	862	100.000%	3962	100.000%	22567	100.000%	4261	100.000%	528	100.000%	32180	100.000%

 $\chi^2 = 12094.161$; $df = 96$; $P < .001$

3.6.3 Diagnostic Categories Among the Psychiatric Patients According to Religion.

The distribution of psychiatric patients according to diagnostic categories and religion is presented in table – 18, 19 and graphically shown in figure - 7.

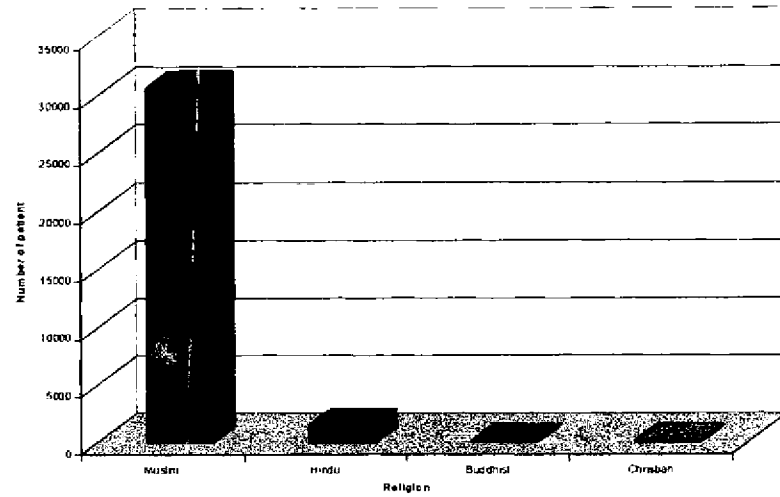
Table – 18, 19 shows that majority of patients were muslim (30640; 95.214%), hindu was the second largest religious group (1433; 4.453%), followed by buddhism and christian which were found (56; 0.174%) and (51; 0.158%) respectively.

Table 18: Distribution of psychiatric patients according to religion.

Religion	Number	Percentage
Muslim	30640	95.214%
Hindu	1433	4.453
Buddhist	56	0.174%
Christian	51	0.158%
Total	32180	100.000%

This findings shows that, the largest numbers of patients were muslims among the hospitals and clinics attenders. Muslims (88.3%) are the majority religious group of Bangladesh, so muslim patients were seek more treatment than other religious group. It means that mental disorders do not vary with religion. The distribution of

religion of psychiatric patients is almost equal according to the 1999 population census



Flure - 7: Distribution of psychiatric patients according to their religion

Table -19: Distribution of psychiatric patients in hospitals and clinics according to diagnostic categories and religion.

Diagnostic Category	RELIGION								Group Total	
	Muslim		Hindu		Buddhist		Christian		No.	%
	No.	%	No.	%	No.	%	No.	%		
Mental Retardation	461	1.505%	18	1.256%	1	1.786%	0	.000%	480	1.492%
Learning Disorders	1	.003%	0	.000%	0	.000%	0	.000%	1	.003%
Motor Skills Disorder	1	.003%	0	.000%	0	.000%	0	.000%	1	.003%
Communication Disorders	34	.111%	0	.000%	0	.000%	0	.000%	34	.106%
Pervasive Developmental Disorders	47	.153%	3	.209%	0	.000%	0	.000%	50	.155%
Attention-Deficit and Disruptive Behavior Disorder	110	.359%	4	.279%	0	.000%	1	1.961%	115	.357%
Tic Disorders			1	.070%	0	.000%	0	.000%	1	.003%
Elimination Disorders	21	.069%	0	.000%	0	.000%	0	.000%	21	.065%
Other Disorders of Infancy, Childhood and Adolescence	5	.016%	0	.000%	0	.000%	0	.000%	5	.016%
Schizophrenia and Other Psychotic Disorders	11866	38.727%	716	49.965%	28	50.000%	21	41.176%	12631	39.251%
Mood Disorders	8929	29.142%	355	24.773%	15	26.786%	10	19.608%	9309	28.928%
Anxiety Disorders	4169	13.606%	150	10.468%	3	5.357%	7	13.725%	4329	13.452%
Somatoform Disorders	1814	5.920%	62	4.327%	4	7.143%	4	7.843%	1884	5.855%
Dissociative Disorders	13	.042%	1	.070%	0	.000%	0	.000%	14	.044%
Sexual and Gender Identity Disorders	109	.356%	6	.419%	0	.000%	0	.000%	115	.357%
Sleep Disorders	100	.326%	6	.419%	1	1.786%	1	1.961%	108	.336%
Personality Disorder	53	.173%	2	.140%	0	.000%	0	.000%	55	.171%
Adjustment Disorders	150	.490%	2	.140%	0	.000%	0	.000%	152	.472%
Substance Related Disorder	1538	5.020%	61	4.257%	1	1.786%	5	9.804%	1605	4.988%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	165	.539%	6	.419%	0	.000%	0	.000%	171	.531%
Impulse-Control Disorders	9	.029%	0	.000%	0	.000%	0	.000%	9	.028%
Other Conditions That May Be a Focus of Clinical Attention	16	.052%	0	.000%	0	.000%	0	.000%	16	.050%
Neurological Conditions	483	1.576%	18	1.256%	0	.000%	0	.000%	501	1.557%
Drug Reaction	98	.320%	6	0.419%	2	3.571%	0	.000%	106	0.329%
Others	448	1.462%	16	1.117%	1	1.786%	2	3.922%	467	1.451%
Group Total	30640	100.000%	1433	100.00%	56	100.00%	51	100.00%	32180	100.000%

3.7 SUMMARY OF THE FINDINGS

1. The records of the psychiatric patients attending hospitals and clinics of Bangladesh show that most of them were suffering from schizophrenia and other psychotic disorders (39.251%), mood disorders (28.928%), anxiety disorders (13.452%), somatoform disorders (5.855%), and substance related disorders (4.988%). It was also found that majority of these psychiatric patients (95%) belonged to Axis – I of DSM - IV.

2. Hospital wise distribution of psychiatric patients indicates that the largest number of patients were in CMCH (6767; 21.029%), Next in order were BSMMU (6265; 19.469%), and the lowest number of patients were in Rang.MCH (1283; 3.987%). Clinic wise distribution of psychiatric patients indicate largest number of patients came from DMC (1809; 5.622%) and the lowest number of patients was found in MPH (308; 0.957%). Results of the chi-square tests indicate significant difference in the number of patients in different hospitals and clinics ($\chi^2=10463.152$; $df=264$; $p<.001$).

3. The number of the patients attending hospitals and clinics per month was highest in 2001(1181; 3.443%), Lowest in 2000 (983; 3.054%) and intermediate in 1999 (1108; 3.443%). This data shows that the differences among these monthly rates of psychiatric patients attending hospitals and clinics of Bangladesh.

4. The prevalence rate of mental disorders calculated on the basis of data obtained from the hospitals of Bangladesh and was found 8.76 per lakh.

5.a. Mental disorders varied significantly according to gender ($\chi^2=2019.010$; $df=72$; $p<.001$), majority of the patients were male (21398; 66.5% out of 32180).

b. Mental disorders varied significantly according to phases of life ($\chi^2=12094.161$; $df=96$; $p<.001$), majority of the patients were adult (22567; 70.127% out of 32180).

c. As Bangladesh is a Muslim majority country in terms of population, majority of psychiatric patients were Muslims (30640; 95.214% out of 32180).

CHAPTER – 4

DISCUSSION

DISCUSSION

This study was carried out in ten hospitals and two clinics of Bangladesh. The main objective of the study was to observe different kinds of mental disorders prevailing among the psychiatric patients who have attended psychiatric department of the hospitals and clinics of the country and to find out the prevalence of mental disorders in Bangladesh. Patients seeking treatment 32180 in the ten hospitals and two clinics during January 1999 to June 2001 formed the source of data for this purpose. Although the sample size of the study was smaller in comparison to general population, to ensure representative ness of the population, at least one government hospital was taken from each district, so that the entire area could be covered. It should be noted that the government hospitals are evenly distributed throughout the country. Thus, the distribution of the sample was nearly representative of the general population so far as the major parts of the country is concerned.

The major finding of this study is that, schizophrenia and other psychotic disorders were the most common group of mental disorders; followed by mood disorders and anxiety disorders among the people who attended the hospitals and clinics (result shown in Table – 5, 6 and Figure -1). This is consistent with several other studies (Islam, Mullick & Khanam, 1993; Ahmed, 1978; Rahim & Islam, 1996; Roy, Sarker, Islam, Rahman & Mamun, 1995) where schizophrenia and other psychotic disorders was also on top of all the mental disorders while mood disorders and anxiety disorders were the second and third most common. Possible reasons for such results could be that most of the people in our country are uneducated and are unaware of mental disorders. Mental patients may therefore seek help from

traditional healer or general practitioners and are not really benefited. These people go to psychiatric departments only after they are by then seriously mentally ill. This can be probably because they do not know the exact place to go to for their problems and by the time they find appropriate psychiatric department the patient is usually seriously ill. This could have been prevented easily if the patient sought treatment earlier.

Substance related disorders were observed as another important disorders and formed the fifth ranking major mental health problem in this study. It should be noted here that the data of this study were primarily from hospitals. If drug addiction treatment centers could be included, this disorder could have ranked much higher. The present data along with previous findings indicate the importance of these disorders requiring treatment by clinical psychologist and psychiatrist.

Besides the above findings few other disorders were detected in this study. Neurological conditions, others disorders and drug reactions were found among the patients of the hospitals and clinics. In the present study these disorders were less frequently observed in the psychiatry department because of present inadequate health care facilities and services in the hospitals and clinics of the country. The people thus tend to think that these disorders are mental. Probably these factors were playing an important role for the patients attending the psychiatric department of the hospitals and clinics.

One of the findings of this study is that, among all the hospitals the highest frequency of psychiatric patients was in Chittagong medical college hospital and the lowest was reported in Rangpur medical college hospital (result shown in Table-8, 9 and Figure -3). It may be that Chittagong is the only hospital in the area unlike Dhaka where these facilities are available in three government medical college hospitals and several private clinics. So, one should not tend to conclude that psychiatric disorders prevail more in Chittagong compared to the other places of the country. Among the clinics the largest number of patients were in Dhaka Monorog Clinic and the lowest number of patients were in Monon Psychiatric Hospitals (result shown in Table- 8, 9 and Figure-3). An explanation may be that Dhaka Monorog Clinic was established more than five years ago and people known about this clinic more than Monon Psychiatric Hospitals. Statistically significant difference was found in the number of psychiatric patients in different hospitals and clinics, which shows that the frequency of psychiatric patients among the ten hospitals and two clinics was not similar. There may be a difference in the number of psychiatric patients in different areas but the place with more psychiatric patients does not necessarily have more people suffering from mental disorders. there may be more or less differences in service facility that has a considerable effect on the number of patients seeking treatment.

Another findings of this study are that, the monthly rate of psychiatric patients was highest in year 2001 and lowest in the year 2000 (result shown in Table-10, 11 and Figure-4). It may have been possible due to increased awareness and motivation of the people through good responsiveness of the psychiatric treatment and due to increased awareness of the other medical professionals about the existence of

psychiatric illness, which was reflected in the improved referral service among hospitals. So there was a significant increase in the number of patients attending in the hospitals and clinics.

The prevalence of mental disorders was determined from the 9 hospitals of Bangladesh in the year 2000 (result shown in Table-12, 13). This may be because of the fact that the prevalence of this study was estimated from the psychiatric patients who seek treatment in 9 hospitals of Bangladesh. In our country people usually do not seek treatment unless their condition is serious. Our society attributes different stigma on the concept of mental health, because most of the people are not aware about their mental health problem. Therefore many psychiatric patients remain undetected. Or it may be that many of the psychiatric patients who seek treatment from private chamber of psychiatrist.

Gender distribution of psychiatric patients show that, male patients seek more treatment than females. Statistically significant relation was also found between mental disorders and gender so, the distribution of male patients and female patients were significantly different from different diagnostic categories (result shown in table – 14, 15 and Figure - 5). The finding of the present study is similar to several studies (Rutter, et al., 1970; Islam, Mullick & Khanam, 1993; Rahim & Islam, 1996; Mullick, Khanam & Islam, 1995) and these studies support the result of the male and female distribution of the psychiatric patients of the present study. These studies show that male patients seek treatment for mental disorders more than the females.

There may be several explanations to these results. It may be that males get more priority from their family than females and most of the time males are the only

earning members of the family. So other members of the family are given more priority for solving their problem. This lower frequency of female in this sample may also be because of conservativeness of the society and economic dependency on male. As a result in our country females are less frequently brought for treatment than their male counterpart, because our women's problems are always neglected and they play subordinate role in the society, or may be due to poverty, social stigma, religious factors, illiteracy and superstitions. Another possible reasons could be that proportionally less women seek health services in our country from government health facilities at thana and district level, perhaps due to the relatively few number of female physicians and lack of privacies in these facilities.

Gender difference in different categories of patients was noticed in this study. Females were in general less in number than males in almost all categories of psychiatric disorders. This may be explained in terms of the prevailing of social stigma preventing female patients to have treatment for mental illness. By and large, women have less access to psychiatric treatment. So, they are often not hospitalized and consequently the number of female patients was less compared to the males.

In this study somatoform disorders and adjustment disorders were more prevalent among female than among males. These findings are consistent with a study (Khan, 1999). Where he found that females suffered somatoform disorders and adjustment disorders; more than any of other disorders.

From the above discussion we can conclude that overall findings of the present study were consistent with the findings of other studies discussed earlier in this section. Although exact similarities could not be observe with other studies. But similarities in broad sense like type of mental disorder, and predominance of males and females, socio-demographic information was consistent with studies of our country and other countries especially in developing countries. Most of the studies in our country are hospital based. However minor dissimilarities in findings of different studies were probably due to several socio-demographic factors of a country. Moreover, due to adaptation of different screening tools, diagnostic criteria by different researchers might play a significant role regarding different findings of different studies.

Huge numbers of people in our country were suffering from mental disorders and as most of them were undetected; they remained untreated, which is an alarming sign for the health system. Mental health service in Bangladesh at present is extremely poor, as compared with other developing countries. Majority of the population remains uncovered by present services. There is not much doubt that mental health in Bangladesh deserves to be considered as one of the prior health problems. Mental well-being must be an integrated part of total health. The following recommendations are given below.

The findings of this study indicate that the necessity to increase service facility for psychiatric treatment. A multidisciplinary approach psychiatrist, clinical psychologist, psychiatric nurse, social worker and occupation therapist are essential¹¹² for the management of psychiatric patients as practiced in developed countries. This approach is now being followed in developing countries. In Bangladesh this

In the present study sexual and gender identity disorders were only among male patients of the hospitals and clinics. This may be explained in terms of existing social conditions such as, prejudice, cultural factors, lack of sex education, over valued belief regarding male potency, shame or passive role of females etc. Almost all the cases of these groups were suffering from sexual dysfunction. Another explanation may be that females show embarrassment and are defensive when asked about their sexuality. They may feel pressure to match with the 'expected standards' of sexuality. A female may suffer from a disorder but they would hesitate to seek treatment.

This study shows that, adult patients between 19-40 years of age group were found to suffer more from mental disorders and this was more than a half of the total number of patients among the hospitals and clinics attenders. Statistically significant relationship was found between mental disorders and age. So, the distribution of age group of patients was significantly different from different diagnostic categories (result shown in Table-16, 17 and Figure-6). Adult patients suffered from schizophrenia and other psychotic disorders, mood disorders, anxiety disorders, somatoform disorders and substance related disorders etc more than other age group of patients. The result is consistent to similar studies conducted in our country (Rahim & Islam, 1996; Alam, 1978; Chowdhury, Selim & Sakeb, 1975; Ahmed, 1978; Islam, Mullick & Khanam, 1993). Observations in developing countries showed a general rise of cases seeking psychiatric treatment in the age over 25 years (Walsh & Walsh, 1978; WHO, 1979; Blessed & Wilson, 1982). A possible explanation for this result might be that young adults are confront major problems of life and find it hard to cope with them such as, unemployment, job dissatisfaction,

unsatisfactory love life, marital conflict, divorce, poor sexual adjustment, poor in-law adjustment for women etc. As a result they constantly suffer from frustration. some people tend to blame themselves for unemployment and think of themselves as failures and these psychological problems gradually increase when the family members are not supportive. Hurlock (1980) supported these explanations.

Elderly group (60 + years age) was the last group of psychiatric patients. Elderly people were found to suffer more from delirium, dementia, amnesic and other cognitive disorders than other age group of patients. An explanation for this may be that elderly people go through some change in their social status in family, which cause a subjective feeling of uselessness and inferiority in them. Financial insecurity may also be a reason attached to these feelings.

Another observation of this study is that, a largest number of patients were Muslims. The lowest numbers of patients were Christians (result shown in Table-18, 19 and Figure-7). The reason for this is that Muslims (88.3%) are the majority religious group of Bangladesh; so Muslim patients seek treatment more than other religious group. The distribution of religion of psychiatric patients is almost equal according to the population census 1991. So, mental disorders do not vary with religion. This finding is similar to that of Islam, Mullick & Khanam, 1993.

There were some limitations while the study was conducted. The researcher had to depend on information from the patients' register of the hospitals and clinics, and only that information was collected which was recorded in the register. Some of the information of the patients e.g. areas of residence, occupation, education, marital

status, socio economic status, family history, source of referral, and treatment outcome were not recorded in the register of some hospitals and clinics. So, the researcher could not get any clear idea about some of the above factors. Yet with the available data some more important findings were revealed. Some of these are discussed in the following

In this study it was found that urban people attended hospitals and clinics more than rural people. This finding is somewhat unusual in comparison to the urban and rural distribution of the population of Bangladesh. According to the population census 2001 in Bangladesh (see Table-20 and Figure-8 given in Appendix-4a and 4b). A number of factors are considered to be responsible for these differences. An explanation in this regard might be that urban life may be more complicated than rural life. Moreover, overcrowding, social disadvantages, environmental pollutions, traffic jam are more in urban areas than rural areas all over the world. On the other hand, government hospital and clinic are located in the urban areas. Urban people may be more conscious than rural people regarding their health, and acquainted to the mental health services and better treatment facilities, as these are readily available in the urban areas. Whatever may be the cause, it is evident that there is a differences regarding prevalence of psychiatric morbidity among urban and rural residence. According to the literary context it was found that urban people more frequently develop psychiatric disorders than rural population. Finding of the present study was more or less consistent with a study of Helen, et al (1991).

Students were higher in number and retired group were small in number of psychiatric patients among the attenders than other occupations in the category (Table-21 and Figure-9 given in Appendix –5a and 5b). Several explanations can be given behind this result and it might be that, sometimes students are confronted with many problems and they are totally unprepared to cope up with this problem. Another explanations in this regard might be that, students who drop out from schools or colleges were frustrated and neglected more than those students who reach the peak of their achievements. From this study it was clear that mood disorders were higher among students. On the other hand students spent most of their time with the peer group. As a result the use of drugs begins as a peer activity. This study shows that substance related disorders were also higher among students.

Most of the people in our country are illiterate according to the 1991 population census of Bangladesh. Mental disorders were more prevalent among those people whose levels of education were secondary classes or 6-10 class passed. In this regard illiterate group was found few in number i.e. lowest group (Table-22 and Figure-10 given in Appendix –6a and 6b). Most of the people in our country are illiterate and they are not aware about their physical health. Illiterate people usually seek treatment from the traditional healers than a physician. But some research in our country indicated that illiterate people suffer more from mental disorders than educated people (Choudhury, Alam & Ali, 1981; Islam, Mullick & Khanam, 1993). The finding of this study shows that educated people seek more treatment than the illiterate people. It indicates that education has a positive impact of on psychiatric consultation possible due to more awareness and orientation to scientific methods of psychiatric treatment. It is still not known, whether educated individuals suffer more

from mental disorders than illiterate people, but it is assumed that the difficult role of as educated person in society along with increased social interaction and high expectation may act as precipitants. Some authors inferred that education was a better predictor of depression prone than other social class sub factors.

In the present study data on marital status of patients showed that the largest number of patients were married and the lowest number were separation group (Table-23 and Figure-11 given in Appendix-7a and 7b). Several explanations can be given behind this result and it may be that in a married life people face many problems like – marital adjustment, sexual adjustment, financial adjustment, and in-law adjustment. These are the main causes for a married person to develop a psychological problem. Sometimes, early and arranged marriage is settled by guardians due to our socio-cultural system, there is a tendency to hide a mental disorder and quickly settle a marriage. These are important factors for a large number of married patients. Similar findings were observed in several studies in our country (Rahim & Islam, 1996; Khan, 1999; Roy & Mamun, 1995).

In the present study, it was found that middle class people attended in the psychiatric department of the hospitals and clinics more than other socio economic classes (Table-24 and Figure-12 given in Appendix –8a and 8b). The possible explanation in this regard might be that, middle class people had some financial pressure or stress, or there may be that job dissatisfaction, or marital adjustment. Some people tend to blame themselves for unemployment and think of themselves as failure. As a result they constantly suffer from frustration. The upper class people attended the hospital and clinics least among all the other socio economic classes. An explanation might

be that upper class people may seek treatment from private chamber of psychiatrist or foreign countries.

Regarding family history of psychiatric disorder in the first degree, relatives encounter increased familial risk for psychopathology and this was supported in the present study even though majority of the patients in this study had no family history of mental disorders (Table-25 and Figure-13 given in Appendix-9a and 9b). Two studies consented with this (Roy, et al., 1995; Khan, 1999) because they found that numbers of same family are more prone to the disorder of the psychiatric patients.

From this research, it was observed that self-referred patients attended the hospitals and clinics most than other categories and lowest numbers of patients were referred from jails (Table-26 and Figure-14 given in Appendix-10a and 10b). An explanation might be due to increased awareness and motivation of the people through good responsiveness of the psychiatric treatment and due to increased awareness of the medical professionals about the existence of psychiatric illness, which was reflected through better referral service among hospitals. This finding is consistent with a study in our country (Islam, Mullick & Khanam, 1993).

In this study, majority of the patients showed improvement after treatment and the rest of the patients did not show improvement after treatment (Table-27 and figure-15 given in Appendix-11a and 11b). An explanation may be that those people had improved after treatment because they completed the full course of treatment or continued with the treatment suggestions.

approach is followed in Pabna Mental Hospital. The number of psychiatrists and psychiatrist nurses are insufficient in this country compared to the total population. Even though clinical psychologists are common in developed countries they are a new occupation in this country and are not widely spread except in the NGO's of Dhaka. Therefore it is necessary to arrange proper services for clinical psychologists in the government hospitals of Bangladesh.

The present study was carried out on the psychiatric patients who seek treatment from the psychiatric department of the hospitals and clinics. Majority of the people in our country are living in the rural areas. Mental health services are not available at the union and upazilla or rural level so, the people in rural areas seek help from the health service provider (general practioners, primary health care physicians, health workers, medical assistants, nurses, and in-service doctors) who have little idea about mental disorders. It would be very helpful if a basic training were provided to these health service providers. So that they can better understand or explore the mental health problems of the patients and can provide basic treatment, make appropriate referrals and follow up chronic cases in the community.

The findings of the present study show that lowest numbers of patients were seeking treatment from the hospitals and clinics. But many studies show that females are suffering from mental disorders more than males. Although the studies so far show that mental disorders are more common in the females than the males in other countries, studies done in our country indicated that most of the men suffer more mental disorders than females. So, there is a need to establish mental health facility for females and to ensure that females can seek mental health service.

The findings of the present study show that record keeping needs to be improved. It would help a future researcher to include the patient's socio demographic information, family history of mental disorders, source of referral, diagnosis, treatment outcome etc.

The present study was a preliminary attempt to survey the mental disorders in the hospitals and clinics of Bangladesh. The researcher suggests a number of indications, which provide the basis for further research as a resultant of the study.

1. Due to time and financial limitation, it was not possible for the researcher to collect data from other clinics, drug center and private chamber of the different areas of Bangladesh. Further studies should include collecting data from all hospitals, clinics, drug centers and private chamber of Bangladesh.

2. The sample size of the present study was smaller in comparison to general population. From this study we could not get an actual figure of exactly how many people are suffering from mental disorders. So, an extensive survey of mental health of the whole country is necessary.

3. Data of the present study were collected from the relevant patients register, maintained by the hospitals and clinics. In most of the hospitals and clinics data's were not available according to the research proforma. For this reason it was not possible to collect more information e.g. residence, occupation, education, marital status, socio-economic status, family history, source of referral and treatment out

come in respect of all the patients. Information about the above factors could be included for further research. In the fine conclusion it may be suggested as such that in depth interview could have been more helpful to reveal these factors.

SUMMARY AND CONCLUSION

SUMMARY AND CONCLUSION

A large countrywide survey of mental disorders has not yet been attempted in Bangladesh. Other study shows that mental disorders are widely prevalent in our country both in the urban and rural communities and it is not less than what has been reported in the other countries.

This thesis is a descriptive type of study conducted on people who attended the psychiatry department of the hospitals and clinics on Bangladesh. Data were collected from the relevant patients register, maintained by hospitals and clinics from January 1999 to June 2001. This study was carried out in ten hospitals (DMCH, BSMMU, SSMCH, MMCH, CMCH, SMCH, BMCH, Raj.MCH, Rang.MCH, PMH) and two clinics (DMC, MOH) of Bangladesh. Information was obtained from the records of 32180 total patients who attended the psychiatry department of the ten hospitals and two clinics of Bangladesh from January 1999 to June 2001. Many of these patients were having schizophrenia and other psychotic disorders, mood disorders, anxiety disorders, somatoform disorders, and substance related disorders respectively. Sexual and gender identity disorders were only prevailing among male attenders. It was found that majority of the psychiatric patients belong to Axis – I. Among the hospitals the highest number of patients were attended in CMCH and lowest number of patients were attended in Rang.MCH. Among the clinics the highest number of patients were attended in DMC and lowest number of patients were attended in MPH. Considering the whole study it shows that huge number of patients have been suffering from mental disorders and it can be said that the distribution of psychiatric patients were not similar in different areas of

Bangladesh. The monthly rate of the psychiatric patients attended in the hospitals and clinics were higher in the year 2001. In Bangladesh 8.76 per lakh prevalence of mental disorders were found from the 9 hospitals. The majority of the patients were males and male and female ratio was 2:1. The majority of the patients were aged between 19 and 40 years (adult group of patient) and the mean age of the patients was 30. A large number of the patients were Muslims. Statistically significant relationship was found between mental disorders and some socio demographic characteristics (gender, age). Most of the patients areas of residence, occupation, levels of education, marital status, socio-economic status, family history, source of referral and treatment outcome was not available. From this study it was found that mental disorders were more in urban population. Students suffered more mental disorders than other occupation. Mental disorders were more prevalent among those people whose levels of education were secondary level or classes (6-10) passed. Married patients suffered more mental disorders than other marital status of patients. Middle class patients attended more in the hospitals and clinics. Majority of the patients had no family history of mental disorders. Self-referred patients attended more in the hospitals and clinics than other categories. Majority of the patients showed improvement after treatment.

This study revealed that a large number of psychiatric patients seek treatment from the hospitals and clinics of Bangladesh. There is an urgent need for promotion of mental health services in Bangladesh. The mental health training programs will be helpful to detect common psychiatric problems for basic treatment and to refer appropriately for their mental problems. A multidisciplinary approach is essential for the management of psychiatric patient. An abundant number of people in the country

were suffering from mental disorders according to DSM IV criteria and as most of them were undetected, so they remained untreated, which is an alarming sign for the health system of the country. Finally the findings of this study suggests early¹²⁰ detection, proper assessment, better care, and ensure of access to better care of mental disorders of patients. Findings of this study provide a guideline for further intensive research in this subject in future.

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APPENDICES

APPENDIX - 1

The following proforma was used to collect the information of the patient from the relevant register.

[illegible]

Appendix – 2

Prevalence (period)

$$\frac{\text{Number of disorders in a specific period}}{\text{Population at risk of disorder in a specific period}} \times C$$

Where C equals 1000 or 100000.

(Cook, 1996)

Appendix - 3

Table 6 : Distribution of psychiatric patients according to major diagnostic categories and sub diagnostic categories in hospitals and clinics.

Major-Diagnostic Category	Sub-Diagnostic Category	GENDER				Group Total	
		Male		Female		No.	%
		No.	%	No.	%		
Mental Retardation	Mental Retardation (M.R)	273	1.276%	126	1.169%	399	1.240%
	M.R. With Psychotic feature	56	.262%	25	.232%	81	.252%
	Group Total	329	1.538%	151	1.400%	480	1.492%
Learning Disorders	Learning Disorders	1	.005%	0	.000%	1	.003%
	Group Total	1	.005%	0	.000%	1	.003%
Motor Skills Disorder	Motor Skills Disorder	1	.005%	0	.000%	1	.003%
	Group Total	1	.005%	0	.000%	1	.003%
Communication Disorders	Communication Disorders	7	.033%	3	.028%	10	.031%
	Stuttering	21	.098%	1	.009%	22	.068%
	Speech Disorder	2	.009%	0	.000%	2	.006%
	Group Total	30	.140%	4	.037%	34	.106%
Pervasive Developmental Disorders	Pervasive Developmental Disorders	10	.047%	4	.037%	14	.044%
	Autistic Disorder	26	.122%	7	.065%	33	.103%
	Aspergers Disorder	3	.014%	0	.000%	3	.009%
	Group Total	39	.182%	11	.102%	50	.155%
Attention-Deficit and Disruptive Behavior Disorder	Attention-Deficit / hyperactivity Disorder	56	.262%	21	.195%	77	.239%
	Conduct Disorder	33	.154%	5	.046%	38	.118%
	Group Total	89	.416%	26	.241%	115	.357%
Tic Disorders	Tic Disorders	1	.005%	0	.000%	1	.003%
	Group Total	1	.005%	0	.000%	1	.003%
Elimination Disorders	Nocturnal Enuresis	16	.075%	5	.046%	21	.065%
	Group Total	16	.075%	5	.046%	21	.065%
Other Disorders of Infancy, Childhood and Adolescence	Separation Anxiety Disorder	2	.009%	3	.028%	5	.016%
	Group Total	2	.009%	3	.028%	5	.016%
Schizophrenia and Other Psychotic Disorders	Schizophrenia	7889	36.868%	3783	35.086%	11672	36.271%
	Schizo Affective Disorder	276	1.290%	113	1.048%	389	1.209%
	Paranoid Type	137	.640%	90	.835%	227	.705%
	Delusional Disorder	51	.238%	21	.195%	72	.224%
	Brief Psychotic Disorder	76	.355%	60	.556%	136	.423%
	Substance Induced Psychotic Disorder	129	.603%	6	.056%	135	.420%
	Group Total	8558	39.994%	4073	37.776%	12631	39.252%

Chi-Square Value = 2019.010, df = 72, P < .001

Table 6 : (Continue) Distribution of psychiatric patients according to major diagnostic categories and sub diagnostic categories in hospitals and clinics.

Major-Diagnostic Category	Sub-Diagnostic Category	GENDER				Group Total	
		Male		Female		No.	%
		No.	%	No.	%		
Sleep Disorder	Sleep Disorder	35	.164%	4	.037%	39	.121%
	Dysomanias	4	.019%	0	.000%	4	.012%
	Insomnia	41	.192%	9	.083%	50	.155%
	Hypersomnia	0	.000%	1	.009%	1	.003%
	Parasomnias	12	.056%	2	.019%	14	.044%
	Group Total	92	.430%	16	.148%	108	.336%
Personality Disorder	Personality Disorder	40	.187%	15	.139%	55	.171%
	Group Total	40	.187%	15	.139%	55	.171%
Adjustment Disorder	Adjustment Disorder	61	.285%	91	.844%	152	.472%
	Group Total	61	.285%	91	.844%	152	.472%
Substance Related Disorder	a. Substance use Disorder	0	.000%	0	.000%	0	.000%
	Substance Dependence	37	.173%	4	.037%	41	.127%
	Substance abuse Disorder	1413	6.603%	46	.427%	1459	4.534%
	b. Substance Induced Disorder	20	.093%	0	.000%	20	.062%
	Substance withdrawal	3	.014%	0	.000%	3	.009%
	c. Poly-Substance Related Disorder	0	.000%	0	.000%	0	.000%
	Poly Substance dependence	11	.051%	0	.000%	11	.034%
	Poly Substance Abuse Disorder	71	.332%	0	.000%	71	.221%
	Group Total	1555	7.267%	50	.464%	1605	4.988%
	Delirium	4	.019%	0	.000%	4	.012%
Delirium, Dementia, Amnestic and other cognitive Disorder	Dementia	111	.519%	56	.519%	167	.519%
	Group Total	115	.537%	56	.519%	171	.531%
	Impulse control syndrome	7	.033%	2	.019%	9	.028%
Impulse Control Disorder	Group Total	7	.033%	2	.019%	9	.028%
	Bereavement	3	.014%	13	.121%	16	.050%
Other Condition that may be a focus of Clinical	Group Total	3	.014%	13	.121%	16	.050%
	Epilepsy	305	1.425%	179	1.660%	484	1.504%
Neurological Conditions	Organic Brain Syndrome	8	.037%	5	.046%	13	.040%
	Cerebral Palsy	3	.014%	1	.009%	4	.012%
	Group Total	316	1.477%	185	1.716%	501	1.557%
Drug reaction	Extra Pyramidal Syndrome	66	.308%	40	0.371%	106	.329%
	Group Total	66	.308%	40	0.371%	106	.329%
Others	Others	314	1.467%	153	1.419%	467	1.451%
	Group Total	314	1.467%	153	1.419%	467	1.451%
Group Total		21398	100.00%	10782	100.00%	32180	100.000%

Appendix – 4a

Table : 20 Distribution of psychiatric patients in hospitals and clinics according to diagnostic categories and their areas of residence.

Diagnostic Category	RESIDENCE						Group Total	
	Urban		Rural		Jail		No.	%
	No.	%	No.	%	No.	%		
Mental Retardation	70	1.122%	63	1.852%	2	2.941%	135	1.391%
Learning Disorders	1	.016%	0	.000%	0	.000%	1	.010%
Motor Skills Disorder	1	.016%	0	.000%	0	.000%	1	.010%
Communication Disorders	20	.321%	5	.147%	0	.000%	25	.258%
Pervasive Developmental Disorders	19	.305%	7	.206%	0	.000%	26	.268%
Attention-Deficit and Disruptive Behavior Disorder	32	.513%	22	.647%	0	.000%	54	.556%
Tic Disorders	1	.016%	0	.000%	0	.000%	1	.010%
Elimination Disorders	4	.064%	0	.000%	0	.000%	4	.041%
Other Disorders of Infancy, Childhood and Adolescence	3	.048%	1	.029%	0	.000%	4	.041%
Schizophrenia and Other Psychotic Disorders	1714	27.472%	1217	35.784%	39	57.353%	2970	30.593%
Mood Disorders	1691	27.104%	914	26.874%	13	19.118%	2618	26.967%
Anxiety Disorders	1055	16.910%	453	13.320%	3	4.412%	1511	15.564%
Somatoform Disorders	522	8.367%	317	9.321%	7	10.294%	846	8.714%
Dissociative Disorders	1	.016%	1	.029%	0	.000%	2	.021%
Sexual and Gender Identity Disorders	51	.817%	39	1.147%	0	.000%	90	.927%
Sleep Disorders	38	.609%	17	.500%	2	2.941%	57	.587%
Personality Disorder	12	.192%	7	.206%	0	.000%	19	.196%
Adjustment Disorders	59	.946%	11	.323%	0	.000%	70	.721%
Substance Related Disorder	709	11.364%	107	3.146%	2	2.941%	818	8.426%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	49	.785%	46	1.353%	0	.000%	95	.979%
Impulse-Control Disorders	2	.032%	7	.206%	0	.000%	9	.093%
Other Conditions That May Be a Focus of Clinical Attention	7	.112%	8	.235%	0	.000%	15	.155%
Neurological Conditions	75	1.202%	78	2.293%	0	.000%	153	1.576%
Drug Reaction	11	0.176%	15	0.441%	0	0.000%	26	0.268%
Others	92	1.475%	66	1.941%	0	0.000%	158	1.628%
Group Total	6239	100.000%	3401	100.000%	68	100.000%	9708	100.000%

Jail - Some prisoners whose residence was unknown recorded as Jails.

Appendix : 4b

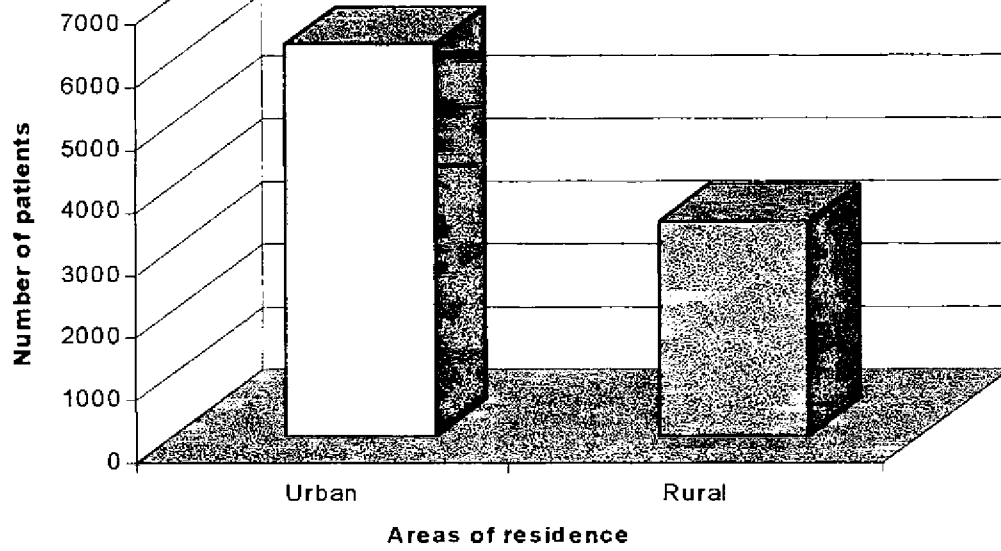


Figure 8: Distribution of psychiatric patients according to their areas of residence

Appendix:5a

Table :21 Distribution of psychiatric patients in hospital and clinics according to diagnostic categories and occupation.

Diagnostic Category	OCCUPATION									
	Student		Service		Unemployed		Business		Housewife	
	No.	%	No.	%	No.	%	No.	%	No.	%
Mental Retardation	20	.776%	0	0.000%	35	2.192%	0	.000%	5	.233%
Communication Disorders	17	.659%	2	.135%	4	.250%	0	.000%	0	.000%
Pervasive Developmental Disorders	2	.078%	0	.000%	0	.000%	0	.000%	0	.000%
Attention-Deficit and Disruptive Behavior Disorders	20	.776%	0	.000%	1	.063%	0	.000%	0	.000%
Tic Disorders	1	.039%	0	.000%	0	.000%	0	.000%	0	.000%
Elimination Disorders	1	.039%	1	.068%	0	.000%	0	.000%	0	.000%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%
Schizophrenia and Other Psychotic Disorders	627	24.321%	340	22.973%	705	44.145%	188	22.461%	579	26.968%
Mood Disorders	612	23.739%	515	34.797%	361	22.605%	241	28.793%	825	38.426%
Anxiety Disorders	576	22.343%	311	21.014%	132	8.265%	103	12.306%	339	15.789%
Somatoform Disorders	231	8.960%	104	7.027%	60	3.757%	43	5.137%	255	11.877%
Sexual and Gender Identify Disorders	33	1.280%	17	1.149%	2	.125%	6	.717%	0	.000%
Sleep Disorders	20	.776%	15	1.014%	1	.063%	2	.239%	2	.093%
Personality Disorder	9	.349%	4	.270%	3	.188%	0	.000%	2	.093%
Adjustment Disorders	23	.892%	5	.338%	2	.125%	1	.119%	30	1.397%
Substance Related Disorder	274	10.628%	120	8.108%	223	13.964%	235	28.076%	14	.652%
Delirium, Dementia and Amnestic and Other Cognitive Disorders	1	.039%	9	.608%	25	1.565%	2	.239%	29	1.351%
Impulse-Control Disorders	2	.078%	0	.000%	2	.125%	0	.000%	0	.000%
Other Conditions That May Be a Focus of Clinical Attention	3	.116%	1	.068%	0	.000%	0	.000%	3	.140%
Neurological Conditions	49	1.901%	13	0.878%	14	.877%	7	.836%	16	.745%
Drug Reaction	12	.465%	1	.068%	4	.250%	1	.119%	6	.279%
Others	45	1.746%	22	1.486%	23	1.440%	8	.956%	42	1.956%
Group Total	2578	100.000%	1480	100.000%	1597	100.000%	837	100.000%	2147	100.000%

Table :21 (Continue) Distribution of psychiatric patients in hospital and clinics according to diagnostic categories and occupation.

Diagnostic Category	OCCUPATION								Group Total	
	Farmer		Labour		Retired		Others		No.	%
	No.	%	No.	%	No.	%	No.	%		
Mental Retardation	2	.619%	2	.484%	0	0.000%	3	1.245%	67	.693%
Communication Disorders	0	.000%	0	.000%	0	.000%	0	.000%	23	.238%
Pervasive Developmental Disorders	0	.000%	0	.000%	0	.000%	0	.000%	2	.021%
Attention-Deficit and Disruptive Behavior Disorders	0	.000%	0	.000%	0	.000%	0	.000%	21	.217%
Tic Disorders	0	.000%	0	.000%	0	.000%	0	.000%	1	.010%
Elimination Disorders	0	.000%	0	.000%	0	.000%	1	.242%	3	.031%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	0	.000%	0	.000%	1	.242%	1	.010%
Schizophrenia and Other Psychotic Disorders	116	35.913%	82	34.025%	7	12.963%	138	33.414%	2782	28.769%
Mood Disorders	116	35.913%	58	24.066%	30	55.556%	137	33.172%	2895	29.938%
Anxiety Disorders	37	11.455%	47	19.502%	4	7.407%	58	14.044%	1607	16.618%
Somatoform Disorders	25	7.740%	16	6.639%	3	5.556%	24	5.811%	761	7.870%
Sexual and Gender Identify Disorders	2	.619%	2	.830%	0	.000%	1	.242%	63	.651%
Sleep Disorders	0	.000%	1	.415%	1	1.852%	3	.726%	45	.465%
Personality Disorder	0	.000%	2	.830%	0	.000%			20	.207%
Adjustment Disorders	0	.000%			0	.000%	1	.242%	62	.641%
Substance Related Disorder	5	1.548%	17	7.054%	1	1.852%	32	7.748%	921	9.524%
Delirium, Dementia and Amnestic and Other Cognitive Disorders	7	2.167%	0	.000%	8	14.815%	1	.242%	82	.848%
Impulse-Control Disorders	0	.000%	0	.000%	0	.000%	0	.000%	4	.041%
Other Conditions That May Be a Focus of Clinical Attention	0	.000%	0	.000%	0	.000%	0	.000%	7	.072%
Neurological Conditions	6	1.858%	4	1.660%	0	0.000%	5	1.211%	114	1.179%
Drug Reaction	0	.000%	1	.415%	0	.000%	1	.242%	26	.269%
Others	7	2.167%	8	3.320%	0	0.000%	8	1.937%	163	1.686%
Group Total	323	100.000%	241	100.000%	54	100.000%	413	100.000%	9670	100.000%

Appendix : 5b

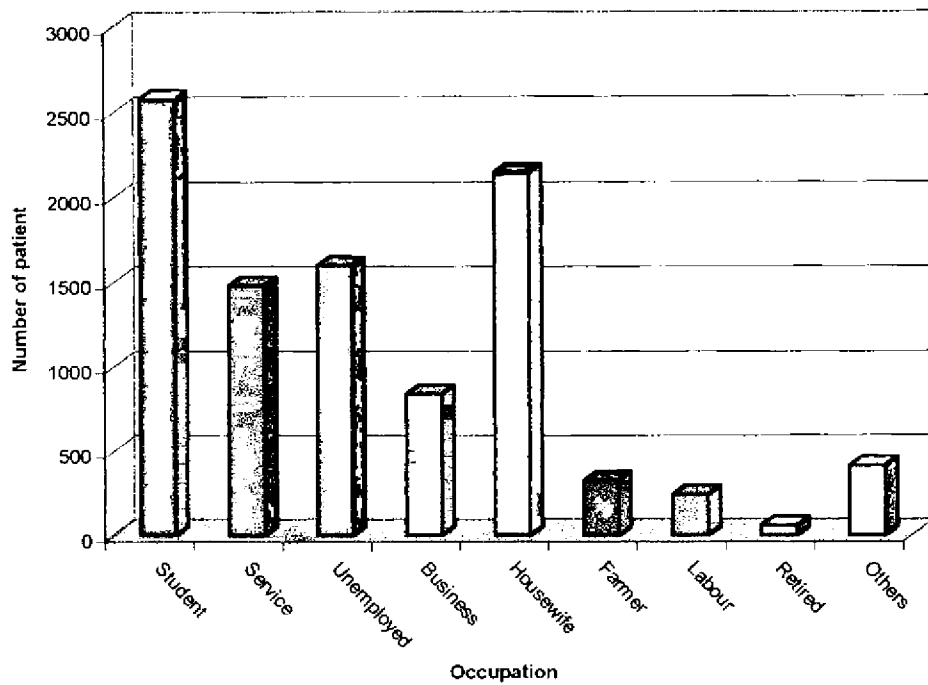


Figure - 9: Distribution of psychiatric patients according to their occupation

Appendix : 6a

Table :22 Distribution of psychiatric patients in hospitals and clinics according to diagnostic categories and levels of education.

Diagnostic Category	LEVELS OF EDUCATION									
	Illiterate		1-5		6-10		SSC		HSC	
	No.	%	No.	%	No.	%	No.	%	No.	%
Mental Retardation	13	15.663%	6	5.042%	1	.183%	0	.000%	0	.000%
Learning Disorders	0	.000%	1	.840%	0	.000%	0	.000%	0	.000%
Motor Skills Disorder	0	.000%	1	.840%	0	.000%	0	.000%	0	.000%
Pervasive Developmental Disorders	15	18.072%	6	5.042%	0	.000%	0	.000%	0	.000%
Attention-Deficit and Disruptive Behavior Disorders	13	15.663%	8	6.723%	5	.914%	0	.000%	0	.000%
Elimination Disorders	0	.000%	0	.000%	1	.183%	0	.000%	0	.000%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	2	1.681%	0	.000%	0	.000%	0	.000%
Schizophrenia and Other Psychotic Disorders	6	7.229%	37	31.092%	208	38.026%	189	39.375%	181	42.290%
Mood Disorders	5	18.072%	18	15.126%	121	22.121%	84	17.500%	80	18.692%
Anxiety Disorders			5	4.202%	12	2.194%			1	.234%
Somatoform Disorders	1	1.205%	3	2.521%	22	4.022%	5	1.042%	4	.935%
Sexual and Gender Identify Disorders	0	.000%	0	.000%	2	.366%	1	.208%	0	.000%
Sleep Disorders	0	.000%	4	3.361%	0	.000%	1	.208%	0	.000%
Personality Disorder	0	.000%	0	.000%	0	.000%	0	.000%	1	.234%
Adjustment Disorders	0	.000%	1	.840%	2	.366%	0	.000%	0	.000%
Substance Related Disorder	7	8.434%	16	13.445%	157	28.702%	198	41.250%	158	36.916%
Impulse-Control Disorders	0	.000%	1	.840%	1	.183%	0	.000%	0	.000%
Neurological Conditions	7	8.434%	5	4.202%	7	1.280%	1	.208%	0	.000%
Drug Reaction	1	1.205%	2	1.681%	4	.731%	1	.208%	1	.234%
Others	5	6.024%	3	2.521%	4	.731%	0	.000%	2	.467%
Group Total	83	100.000%	119	100.000%	547	100.000%	480	100.000%	428	100.000%

Table : 22 (Continue) Distribution of psychiatric patients in hospitals and clinics according to diagnostic categories and levels of education.

Diagnostic Category	EDUCATION				Group Total	
	Graduate		Post Graduate		No.	%
	No.	%	No.	%		
Mental Retardation	0	0.000%	0	0.000%	20	.968%
Learning Disorders	0	.000%	0	.000%	1	.048%
Motor Skills Disorder	0	.000%	0	.000%	1	.048%
Pervasive Developmental Disorders	0	.000%	0	.000%	21	1.016%
Attention-Deficit and Disruptive Behavior Disorders	0	.000%	0	.000%	26	1.258%
Elimination Disorders	0	.000%	0	.000%	1	.048%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	0	.000%	2	.097%
Schizophrenia and Other Psychotic Disorders	125	38.820%	33	37.500%	779	37.687%
Mood Disorders	70	21.739%	22	25.000%	410	19.836%
Anxiety Disorders	6	1.863%	1	1.136%	25	1.209%
Somatoform Disorders	0	0.000%	0		35	1.693%
Sexual and Gender Identify Disorders	0	.000%	0	.000%	3	.145%
Sleep Disorders	0	.000%	0	.000%	5	.242%
Personality Disorder	1	.311%	0	.000%	2	.097%
Adjustment Disorders	1	.311%	0	.000%	4	.194%
Substance Related Disorder	116	36.025%	31	35.227%	683	33.043%
Impulse-Control Disorders	1	.311%	1	1.136%	4	.194%
Neurological Conditions	0	0.000%	0	0.000%	20	0.968%
Drug Reaction	2	.621%	0	0.000%	11	0.532%
Others	0	.000%	0	0.000%	14	0.677%
Group Total	322	100.000%	88	100.000%	2067	100.000%

Appendix : 6b

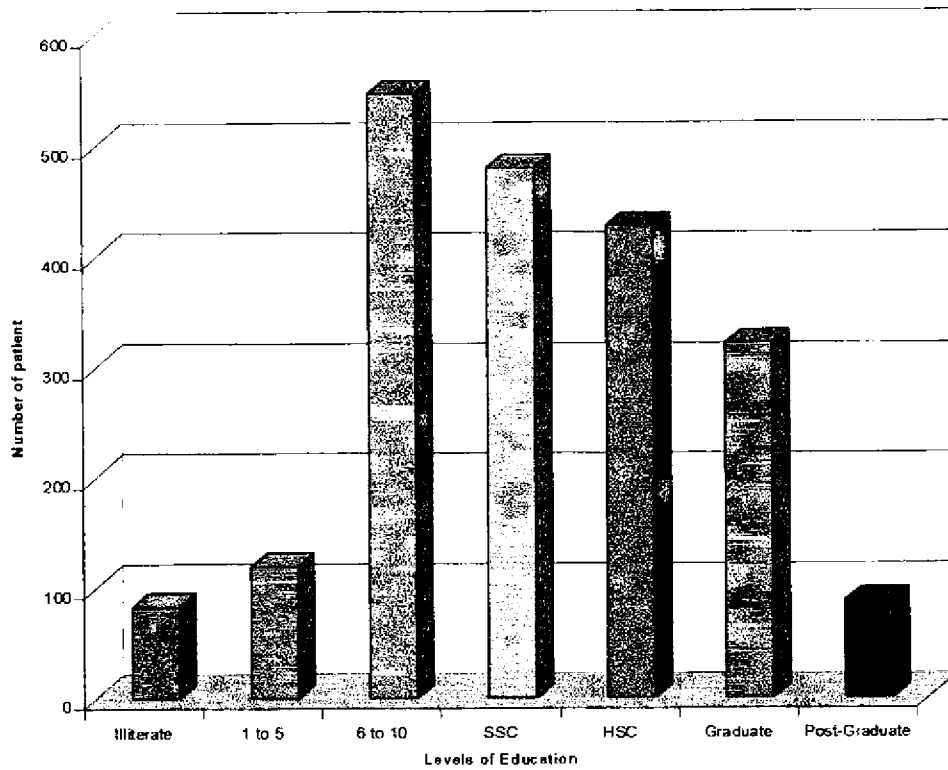


Figure - 10: Distribution of psychiatric patients according to their levels of education

Appendix : 7a

Table :23 Distribution of psychiatric patients according to their marital status and diagnostic categories in hospitals and clinics.

Diagnostic Category	MARITAL STATUS										Group Total	
	Unmarried		Married		Widow		Divorce		Separation		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%		
Mental Retardation	72	1.893%	9	.204%	0	.000%	1	1.471%	0	.000%	82	.985%
Learning Disorders	0	.000%	1	.023%	0	.000%	0	.000%	0	.000%	1	.012%
Communication Disorders	21	.552%	1	.023%	0	.000%	0	.000%	0	.000%	22	.264%
Pervasive Developmental Disorders	5	.131%	0	.000%	0	.000%	0	.000%	0	.000%	5	.060%
Attention-Deficit and Disruptive Behavior Disorders	29	.762%	0	.000%	0	.000%	0	.000%	0	.000%	29	.348%
Elimination Disorders	2	.053%	1	.023%	0	.000%	0	.000%	0	.000%	3	.036%
Other Disorders of infancy, Childhood and Adolescence	2	.053%	0	.000%	0	.000%	0	.000%	0	.000%	2	.024%
Schizophrenia and Other Psychotic Disorders	1164	30.599%	1167	26.451%	7	31.818%	31	45.588%	3	18.750%	2372	28.503%
Mood Disorders	830	21.819%	1563	35.426%	9	40.909%	20	29.412%	5	31.250%	2427	29.164%
Anxiety Disorders	619	16.272%	657	14.891%	2	9.091%	6	8.824%	5	31.250%	1289	15.499%
Somatoform Disorders	294	7.729%	405	9.180%	0	.000%	3	4.412%	0	.000%	702	8.435%
Sexual and Gender Identify Disorders	16	.421%	13	.408%	0	.000%	0	.000%	1	6.250%	35	.421%
Sleep Disorders	18	.473%	13	.295%	0	.000%	0	.000%	0	.000%	31	.373%
Personality Disorder	12	.315%	5	.113%	0	.000%	0	.000%	0	.000%	17	.204%
Adjustment Disorders	24	.631%	41	.929%	0	.000%	0	.000%	0	.000%	65	.781%
Substance Related Disorder	557	14.642%	349	7.910%	2	9.091%	6	8.824%	2	12.500%	916	11.007%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	2	.053%	75	1.700%	2	9.091%	0	.000%	0	.000%	79	.949%
Impulse-Control Disorders	2	.053%	1	.023%	0	.000%	0	.000%	0	.000%	3	.036%
Other Conditions That May Be a Focus of Clinical Attention	3	.079%	3	.068%	0	.000%	1	1.471%	0	.000%	7	.084%
Neurological Conditions	68	1.788%	25	.567%	0	.000%	0	.000%	0	.000%	93	1.118%
Drug Reaction	20	.526%	7	0.159%	0	.000%	0	.000%	0	.000%	27	.324%
Others	44	1.157%	72	1.632%	0	.000%	0	.000%	0	.000%	116	1.394%
Group Total	3804	100.000%	4412	100.000%	22	100.000%	68	100.000%	16	100.000%	8322	100.000%

Appendix : 7b

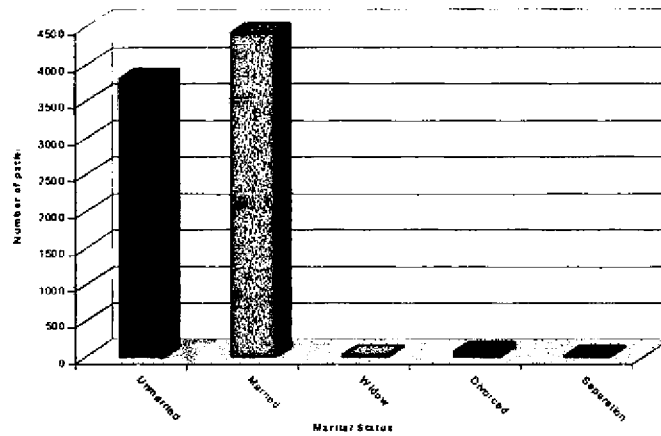


Figure - 11: Distribution of psychiatric patients according to their marital status

Appendix : 8a

Table : 24 Distribution of psychiatric patients in hospitals and clinics according to diagnostic categories and socio-economic status.

Diagnostic Category	SOCIO ECONOMIC STATUS										Group Total	
	Upper		Middle		Upper Middle		Lower Middle		Low		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%		
Mental Retardation	0	0.000%	2	.203%	0	.000%	1	.990%	0	.000%	3	.197%
Schizophrenia and Other Psychotic Disorders	18	33.333%	414	41.988%	91	34.601%	42	41.584%	53	45.299%	618	40.631%
Mood Disorders	13	24.074%	192	19.473%	50	19.011%	21	20.792%	33	28.205%	309	20.316%
Anxiety Disorders	1	1.852%	5	.507%	4	1.521%	0	.000%	0	.000%	10	.657%
Somatoform Disorders	1	1.852%	9	.913%	0	.000%	0	.000%	0	.000%	10	.657%
Sexual and Gender Identify Disorders	0	.000%	2	.203%	1	.380%	0	.000%	0	.000%	3	.197%
Sleep Disorders	0	.000%	1	.101%	0	.000%	0	.000%	0	.000%	1	.066%
Adjustment Disorders	0	.000%	2	.203%	0	.000%	0	.000%	0	.000%	2	.131%
Substance Related Disorder	21	38.889%	349	35.396%	113	42.966%	36	35.644%	29	24.786%	548	36.029%
Impulse-Control Disorders	0	.000%	0	.000%	2	.760%	0	.000%	0	.000%	2	.131%
Neurological Conditions	0	0.000%	3	.304%	0	.000%	1	.990%	1	.855%	5	.329%
Drug Reaction	0	.000%	6	.609%	2	.760%	0	.000%	1	.855%	9	.592%
Others	0	0.000%	1	.101%	0	.000%	0	.000%	0	.000%	1	.066%
Group Total	54	100.000%	986	100.000%	263	100.000%	101	100.000%	117	100.000%	1521	100.000%

Appendix : 8b

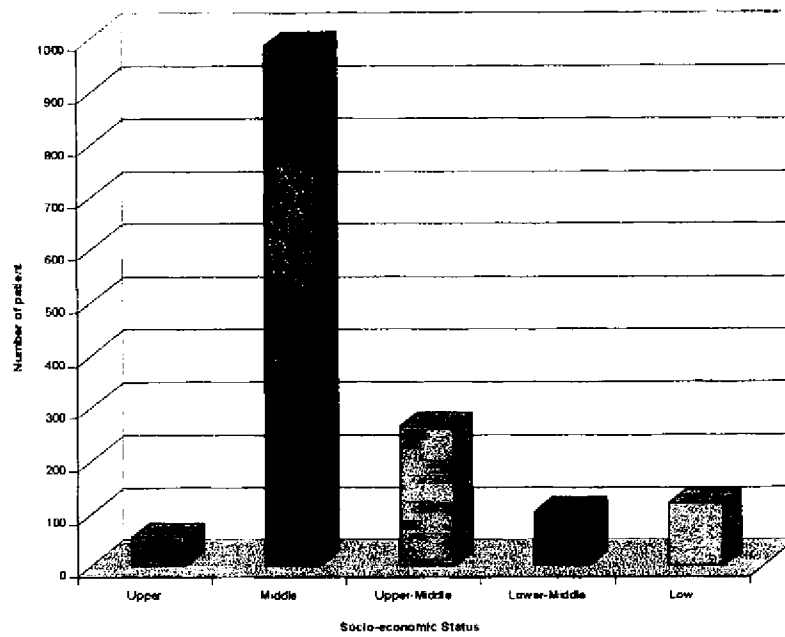


Figure - 12: Distribution of psychiatric patients according to their socio-economic status

Appendix : 9a

Table : 25 Distribution of psychiatric patients with and without family history in different diagnostic categories in hospitals and clinics in Bangladesh.

Diagnostic Category	FAMILY HISTORY				Group Total	
	Yes		No.		No.	%
	No.	%	No.	%		
Mental Retardation	2	.358%	35	1.004%	37	.915%
Communication Disorders	0	.000%	8	.229%	8	.198%
Pervasive Developmental Disorders	0	.000%	1	.029%	1	.025%
Attention-Deficit and Disruptive Behavior Disorders	0	.000%	11	.316%	11	.272%
Elimination Disorders	0	.000%	1	.029%	1	.025%
Other Disorders of Infancy, Childhood and Adolescence	0	.000%	1	.029%	1	.025%
Schizophrenia and Other Psychotic Disorders	253	45.341%	1006	28.858%	1259	31.133%
Mood Disorders	155	27.778%	953	27.338%	1108	27.399%
Anxiety Disorders	8	1.434%	435	12.478%	443	10.955%
Somatoform Disorders	7	1.254%	249	7.143%	256	6.330%
Sexual and Gender Identify Disorders	1	.179%	3	.086%	4	.099%
Sleep Disorders	0	.000%	7	.201%	7	.173%
Personality Disorder	0	.000%	8	.229%	8	.198%
Adjustment Disorders	0	.000%	34	.975%	34	.841%
Substance Related Disorder	125	22.401%	607	17.413%	732	18.101%
Delirium, Dementia and Amnesic and Other Cognitive Disorders	0	0.000%	37	1.061%	37	.915%
Impulse-Control Disorders	2	.358%			2	.049%
Other Conditions That May Be a Focus of Clinical Attention	0	.000%	1	.029%	1	.025%
Neurological Conditions	1	.179%	32	.918%	33	.816%
Drug Reaction	3	.538%	15	.430%	18	.445%
Others	1	.179%	42	1.205%	43	1.063%
Group Total	558	100.000%	3486	100.000%	4044	100.000%

Appendix: 9b

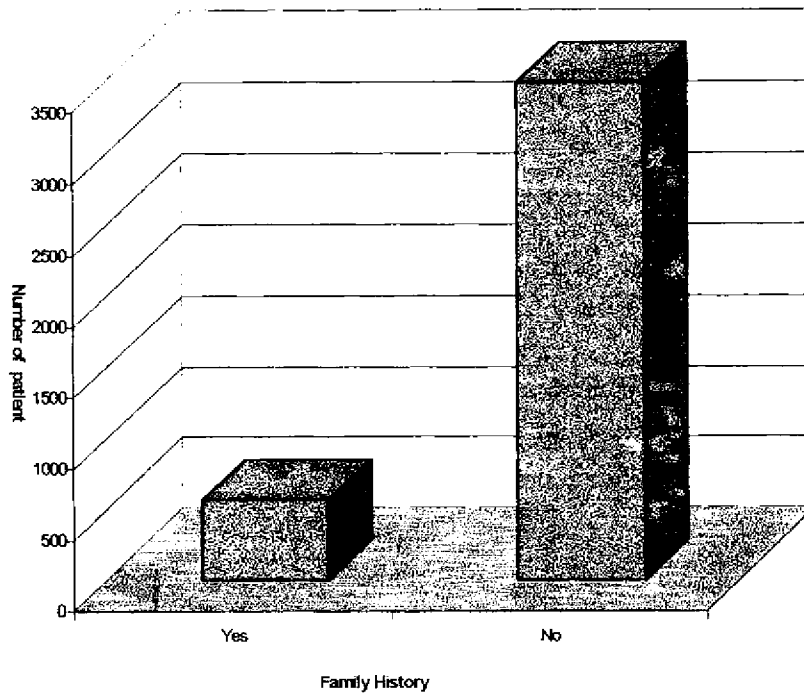


Figure - 13: Distribution of psychiatric patients with and without family history in different diagnostic categories.

Appendix : 10a

Table :26 Distribution of source of referral of psychiatric patients according to diagnostic categories in hospitals and clinics.

Diagnostic Category	SOURCE OF REFERRAL											
	Referred by Psychiatrist		Referred by GP		Referred by other departments of hospital		Referred by other Hospitals		Referred by Jail		Referred by Self	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Mental Retardation	9	1.471%	2	.957%	14	1.114%	4	13.333%	1	10.000%	0	0.000%
Learning Disorders	0	.000%	0	.000%	1	.080%	0	.000%	0	.000%	0	.000%
Motor Skills Disorder	0	.000%	0	.000%			0	.000%	0	.000%	0	.000%
Communication Disorders	2	.327%	0	.000%	13	1.034%	0	.000%	0	.000%	6	.259%
Pervasive Developmental Disorders	4	.654%	0	.000%	9	.716%	0	.000%	0	.000%	0	.000%
Attention-Deficit and Disruptive Behavior Disorders	5	.817%	3	1.435%	10	.796%	3	10.000%	0	.000%	0	.000%
Tic Disorders	1	.163%	0	.000%					0	.000%	0	.000%
Elimination Disorders	0	.000%	0	.000%	3	.239%	0	.000%	0	.000%	0	.000%
Other Disorders of Infancy, Childhood and Adolescence	1	.163%	1	.478%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Schizophrenia and Other Psychotic Disorders	201	32.843%	35	16.746%	92	7.399%	2	6.667%	2	20.000%	1	.043%
Mood Disorders	200	32.680%	68	32.536%	337	26.810%	11	36.667%	3	30.000%	1241	53.514%
Anxiety Disorders	40	6.536%	45	21.531%	373	29.674%	6	20.000%	2	20.000%	647	27.900%
Somatoform Disorders	34	5.556%	27	12.919%	238	18.934%	3	10.000%	0	0.000%	229	9.875%
Sexual and Gender Identify Disorders	0	.000%	0	.000%	5	.398%	0	.000%	0	.000%	12	.517%
Sleep Disorders	1	.163%			15	1.193%	0	.000%	0	.000%	13	.561%
Personality Disorder	2	.327%	1	.478%			0	.000%	0	.000%	1	.043%
Adjustment Disorders	5	.817%	3	1.435%	8	.636%	0	.000%	0	.000%	25	1.078%
Substance Related Disorder	80	13.072%	10	4.785%	27	2.148%	1	3.333%	1	10.000%	87	3.752%
Delirium, Dementia and Amnestic and Other Cognitive Disorders	7	1.144%	5	2.392%	15	1.193%	0	.000%	0	.000%	6	.259%
Impulse-Control Disorders	1	.163%	0	.000%	0	.000%	0	.000%	0	.000%	0	.000%
Other Conditions That May Be a Focus of Clinical Attention	0	.000%	0	.000%	3	.239%	0	.000%	0	.000%	0	.000%
Neurological Conditions	9	1.471%	4	1.914%	44	3.500%	0	.000%	0	.000%	8	.345%
Drug Reaction	4	0.654%	1	0.478%	7	0.557%	0	0.000%	0	0.000%	0	0.000%
Others	6	0.980%	4	1.914%	42	3.341%	0	0.000%	1	10.000%	43	1.854%
Group Total	612	100.000%	209	100.000%	1254	100.000%	30	100.000%	10	100.000%	2319	100.000%

Table :26 (Continue) Distribution of source of referral of psychiatric patients according to diagnostic categories in hospitals and clinics.

Diagnostic Category	REFERRAL		Group Total	
	Referred by Family members or relatives		No.	%
	No.	%		
Mental Retardation	72	3.462%	102	1.565%
Learning Disorders	0	.000%	1	.015%
Motor Skills Disorder	1	.048%	1	.015%
Communication Disorders	2	.096%	23	.353%
Pervasive Developmental Disorders	17	.817%	30	.460%
Attention-Deficit and Disruptive Behavior Disorders	38	1.827%	59	.905%
Tic Disorders	0	.000%	1	.015%
Elimination Disorders	0	.000%	3	.046%
Other Disorders of Infancy, Childhood and Adolescence	1	.048%	3	.046%
Schizophrenia and Other Psychotic Disorders	1222	58.750%	1556	23.876%
Mood Disorders	193	9.279%	2053	31.502%
Anxiety Disorders	147	7.067%	1260	19.334%
Somatoform Disorders	150	7.212%	681	10.450%
Sexual and Gender Identify Disorders	0	.000%	17	.261%
Sleep Disorders	4	.192%	33	.506%
Personality Disorder	13	.625%	17	.261%
Adjustment Disorders	23	1.106%	64	.982%
Substance Related Disorder	74	3.558%	280	4.296%
Delirium, Dementia and Amnestic and Other Cognitive Disorders	48	2.308%	81	1.243%
Impulse-Control Disorders	0	.000%	1	.015%
Other Conditions That May Be a Focus of Clinical Attention	3	.144%	6	.092%
Neurological Conditions	35	1.683%	100	1.534%
Drug Reaction	5	0.240%	17	.261%
Others	32	1.538%	128	1.964%
Group Total	2080	100.000%	6517	100.000%

Appendix : 10b

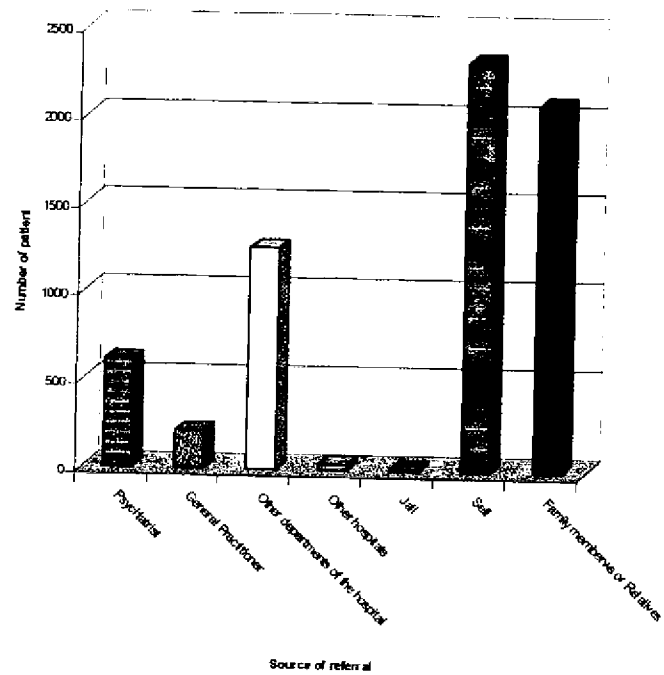


Figure - 14: Distribution of psychiatric patients according to their source of referral

Appendix : 11a

Table :27 Distributioof treatment outcome of patients according to diagnostic categories.

Diagnostic Category	Treatment Outcome				Group Total	
	Improved		Not Improved		No.	%
	No.	%	No.	%		
Mental Retardation	3	.185%	0	.000%	3	.166%
Schizophrenia and Other Psychotic Disorder	663	40.901%	67	35.829%	730	40.376%
Mood Disorder	332	20.481%	33	17.647%	365	20.188%
Anxiety Disorder	11	.679%	2	1.070%	13	.719%
Somatoform Disorder	10	.617%	4	2.139%	14	.774%
Sexual Disorder	2	.123%	1	.535%	3	.166%
Sleep Disorder	1	.062%	0	.000%	1	.055%
Adjustment Disorder	2	.123%	0	.000%	2	.111%
Substance Related Disorder	580	35.780%	77	41.176%	657	36.338%
Impulse Control Disorder	0	.000%	3	1.604%	3	0.166%
Neurological Conditions	5	0.308%	0	.000%	5	0.277%
Drug Reaction	11	0.679%	0	.000%	11	0.608%
Others	1	.062%	0	.000%	1	.055%
Group Total	1621	100.000%	187	100.000%	1808	100.000%

Appendix: 11b

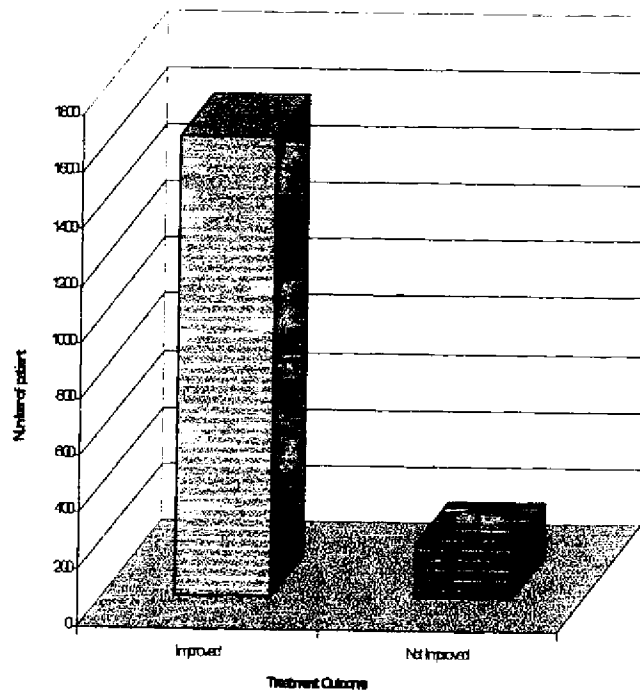


Figure- 15: Distribution of psychiatric patients according to their treatment outcome

Appendix –12

List of Consulted People

- 1. Professor, Dr. A.A.Munib**, Retired Head of the Psychiatry Department, Bangabandhu Sheikh Mujib Medical University (BSMMU, former IPGM&R), Shahbag, Dhaka.
- 2. Md. Zahir Uddin**, Clinical Psychologist, ICDDR, Mohakhali, Dhaka.
- 3. Farah Deeba**, Trainee Clinical Psychologist, Department of Clinical Psychology, Dhaka University.

Appendix – 13

List of Research Assistant

- 1. Dr. S. M. Ishtiaque Ahmed**, Medical Officer, Ganashastha Nagar Hospital, Dhanmondi, Dhaka.
- 2. Mr. Mesbahul Islam**, Psychologist of Pabna Mental Hospital and Trainee Clinical Psychologist of Clinical Psychology Department, Dhaka University.
- 3. Mr. Apu**, B.B.A student, Dhaka Commerce College, Dhaka.

Hamida Akhtar Begum

M.A (Dhaka), M. A. Ph. D. (Manitoba, Canada)
ProfessorPhone 9661900-59/4592 (Off.)
8618332 (Res.)
Department of Psychology
University of Dhaka
Dhaka-1000, Bangladesh

To.

The Director,

Chittagong Medical College and Hospital,

Chittagong.

Subject: Permission for collecting data for research purpose.

Dear Sir

I have the honour to say that Ms. Nadira Shammi is a student of M Phil 2nd part in the department of Clinical Psychology of the University of Dhaka. As per the requirement of her M Phil 2nd part she is to conduct a research under my supervision. The title of the research is "A survey of mental disorders in the hospitals and clinics of Bangladesh". To fulfill the purpose of her research she is to collect data from the hospitals and clinics in the Psychiatry department. She needs your help to collect data from your hospital.

For this purpose another trained person Mr. Dr. Syntiaque Ahmed has been helping her to collect data on her behalf. In this connection the norms and procedures of the research and confidentiality of the documents will be observed and obeyed.

I should be most grateful if you would kindly give the permission for collecting data from your hospital.

Thanking you.

Yours faithfully,

H. Begum

Date: 11/10/2001

Dr Hamida Akhtar Begum,
Professor
Department of Psychology
University of Dhaka

MA (Dhaka), M. A., Ph. D. (Manitoba, Canada)
Professor

8618332 (Res.)

Department of Psychology
University of Dhaka
Dhaka-1000, Bangladesh

or The Director,
Mental Hospital,
Pabna.

पुस्तकालय संख्या : १४०
तारीख : २०/१०/७९

मानसिक स्वास्थ्य विभाग, दिल्ली

Dear Sir

For this purpose another trained person Mr. Md. Mezbahul Islam has been helping her to collect data on her behalf. In this connection the norms and procedures of the research and confidentiality of the documents will be observed and obeyed.

I should be most grateful if you would kindly give the permission for collecting data from your hospital.

Thanking you.

Yours faithfully,

Date _____

A. Beg-

Dr Hamida Akhtar Begum,
Professor
Department of Psychology,
University of Dhaka.

Hamida Akhter Begum

M.A. (Dhaka), M.A., Ph.D. (Manitoba, Canada)
Professor

Dhaka University Institutional Repository



Phone 9661900 59/4592 (Off.)
8618332 (Res.)
Department of Psychology
University of Dhaka
Dhaka-1000, Bangladesh

To,
The Director,
Dhaka Medical College Hospital,
Dhaka.

Subject: Permission for collecting data for research purpose.

Dear Sir,

I have the honour to introduce Ms. Nadira Shammi who is studying M.Phil 2nd part in the department of Clinical Psychology of the University of Dhaka. As per the requirement of her M.Phil 2nd part she is to conduct a research under my supervision. The title of the research is "A survey of mental disorders in the hospitals and clinics of Bangladesh". To fulfill the purpose of her research she is to collect data from the hospitals and clinics in the Psychiatry department. She needs your help to collect data from your hospital. She will obey the norms and procedures of the research and will also maintain the confidentiality of the document.

I should be most grateful if you would kindly give her permission for collecting data of your hospital.

Thanking you.

Date: 13.08.01

Yours faithfully,

Professor Dr Hamida Akhter Begum,
Department of Psychology,
University of Dhaka

Particulars of the student-

- 1. Nadira Shammi,
- 2. M.Phil-2nd part,
- 3. Department of Clinical Psychology,
- 4. University of Dhaka.

Hamida Akhter Begum

M.A (Dhaka), M.A, Ph.D (Manitoba Canada)
Professor

Dhaka University Institutional Repository



Phone: 8661900 59/4592 (Off.)
8618332 (Res.)
Department of Psychology
University of Dhaka
Dhaka-1000, Bangladesh

To,

The Head of the department,

Sylhet M.G. Osmani Medical College Hospital,

Sylhet.

Subject: Permission for collecting data for research purpose.

Dear Sir,

I have the honour to introduce Ms. Nadira Shammi who is studying M.Phil 2nd part in the department of Clinical Psychology of the University of Dhaka. As per the requirement of her M.Phil 2nd part she is to conduct a research under my supervision. The title of the research is "A survey of mental disorders in the hospitals and clinics of Bangladesh". To fulfill the purpose of her research she is to collect data from the hospitals and clinics in the Psychiatry department. She needs your help to collect data from your hospital. She will obey the norms and procedures of the research and will also maintain the confidentiality of the document.

I should be most grateful if you would kindly give her permission for collecting data of your hospital.

Thanking you.

Date: 15-5-02

Yours faithfully,

H. Begum

Professor Dr Hamida Akhter Begum,
Department of Psychology,
University of Dhaka

Particulars of the student-

Nadira Shammi,
M.Phil-2nd part,
Department of Clinical Psychology,
University of Dhaka.

*Should be
done*

15/5/02

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স্বাক্ষরিত
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