MENTAL HEALTH PROBLEMS AMONG ASTHMA PATIENTS

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APPROVAL SHEET

This is to certify that I have read the thesis entitled **"Mental Health Problems among Asthma Patients",** submitted by Naima Zannat in partial fulfillment of the requirement for the Degree of Master of Philosophy in Clinical Psychology at the University of Dhaka, and that is an original research carried out by her, under my supervision and guidance.

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Dedicated to

My husband, my son and my mother who have been my greatest source of encouragement, inspiration and inner strength

ABSTRACT

The present study was carried out to see the mental health problems among asthma patients. There were three objectives of the study. The first objective was to determine the common mental disorders among asthma patients attending the outpatient service. The second objective was to evaluate associations between the psychiatric status and health related quality of life (HRQoL) of adults suffering from asthma. The third objective was to determine health related quality of life (HRQoL) of asthma patients compared with control. The Self Reporting Questionnaire (SRQ-24), the SF-36 and the Structured Clinical Interview for DSM-IV Axis-I Disorders, Clinician Version (SCID-CV) were used to meet the objectives. The study identified common mental health problems among asthma patients in Bangladesh. In this study, total sample size was 800, among them 400 were asthma patients and 400 were healthy individuals as a control group. Here, two stage designs were used to assess psychiatric morbidity rate and different types of common mental health problems among asthma patients. Age and sex matched healthy subjects were included as a control group for comparing health related quality of life of asthma patients. An evaluation was also made to whether psychiatric morbidity affected HRQoL. The samples' age range was 18 and over. The study results showed that 33.76% of asthma patients attending outpatients' service obtained psychiatric diagnosis. In this study, dysthymic disorder was 13.32%, major depressive disorder was 8.16%, panic disorder was 4.91%, generalized anxiety disorder was 4.24%, obsessive compulsive disorder was 1.33%, social phobia was 0.75%, somatoform disorder was 0.25%, depressive disorder nos was 0.50% and anxiety disorder nos was 0.25%. The quality of life of asthma patients who were diagnosed to have psychiatric disorder was poor compared to those asthma patients who had no psychiatric disorder. It has been proved that patients who were suffering from asthma performed very poor in daily life than healthy individuals. The present study concludes that the prevalence of psychiatric disorder among asthma patients is an alarming issue. There is a significant association between psychiatric status and health related quality of life. HRQoL is highly affected in asthma patients. This study confirms that psychiatric morbidity is high among asthma patients. These findings suggested that an interdisciplinary approach is necessary for the management of asthma patients as well as to improve their physical, mental, emotional and social functioning.

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LIST OF ABBREVIATIONS

SCID-I	Structured Clinical Interview for DSM IV Axis-I Disorder
HRQoL	Health-Related Quality of Life
SRQ-24	Self Reporting Questionnaire-24 item
MDD	Major Depressive Disorder
SCID-CV	Clinical Version of SCID-I
nos	not otherwise specified
GAD	Generalized Anxiety Disorder
PF	Physical Functioning
RP	Role Limitations due to Physical Health Condition
BP	Bodily Pain
SF	Social Functioning
GMH	General Mental Health
RE	Role limitations due to emotional Problem
VEF	Vitality Energy and Fatigue
GHP	General Health Perception
MCS	Mental Component Summary
PCS	Physical Component Summery
S.S.C	Secondary School Certificate
H.S.C	Higher Secondary Certificate
UK	United kingdom
SF-36	Short form health Survey- 36 item

INTRODUCTION

Asthma is one of the major public health problems with increasing prevalence. It has long been considered a condition in which psychological distress exerts a negative impact. Epidemiological studies confirm that depression and anxiety disorders, amongst the most common psychiatric disorders, occur in higher rates in people with asthma than in the general population (Van Lieshout & MacQueen, 2012). Asthma has long been viewed by both the medical and psychological community as a chronic respiratory illness that may be provoked or exacerbated by psychological factors. Knowledge of the relationship of asthma to psychological factors arose from an accumulation of case studies and anecdotes about the relation between emotional upset or exposure to benign objects and the exhibition of asthma symptoms (Dekker & Groen, 1956; Dekker, Pelser, & Groen, 1957; French & Alexander, 1941; Rees, 1956). For example, MacKenzie (1886) documented the case of a woman with asthma whose symptoms were precipitated by contact with roses. Interestingly, severe symptoms were also triggered by contact with an artificial rose. Over time, a variety of events (e.g., merely looking at dust, using an elevator, seeing a picture of a horse, or looking at a goldfish in a bowl) have been reported to lead to asthma symptoms (Dekker & Groen, 1956). Because asthma symptoms appear at times to be evoked or worsened by an individual's mental state, or by exposure to objects that should not physiologically lead to bronchoconstriction, psychological correlates of asthma continue to be widely researched.

In the medical and psychological literature, there are opposing views about whether or not asthma is indeed caused or exacerbated by psychological factors (Ibor, 1956; Purcell & Weiss, 1970). In the 1950s, researchers suggested that emotional factors played a role in the etiology of asthma symptoms (Dekker & Groen, 1956; Dekker et al., 1957; French & Alexander, 1941). However, at the time, it was unclear how much emotional factors contributed and how they operated in creating symptoms (Rees, 1956). Unfortunately, over 40 years later, there has been little progress toward a definitive resolution of either of these points. Researchers continue to disagree about the role played by psychological factors in the experience of asthma. A variety of contrasting views about the interaction between asthma and psychological factors

have been presented. Psychosomatic models of asthma posit that the disease may be caused or exacerbated by intense emotions or particular personality types (e.g., dependent) or characteristics (e.g., emotional lability; French & Alexander, 1941; Henry, Morera, Frugoni, & Gonzalez-Martin, 1993; Lyketsos et al., 1984). Some theorists suggest that asthma and specific psychological disorders (e.g., schizophrenia, agoraphobia, depression) are alternate manifestations of each other (Ibor, 1956; Kelly & Zeller, 1969). In contrast, other researchers propose that asthma is not caused by psychological phenomena at all, stating that the real task in studying asthma should be to examine the development of psychopathology as a consequence of having asthma (Maes & Schlosser, 1987). Conceivably, psychological disorders may occur as a result of living with a chronic illness, not vice versa (Plutchik, Williams, Jerrett, Karasu, & Kane, 1978). According to Maes and Schlosser (1 987), it may be more productive to direct research toward questions of psycho maintenance. This area of focus might include such issues as how particular disorders (e.g., anxiety, depression) or methods of coping with asthma affect the course and outcome of the disease (Deenen & Klip, 1993; Janson-Bjerklie, Ferketich, & Benner, 1993; Staudenmayer, Kinsman, & Jones, 1978). Research about the relation between asthma and psychological factors leads to conclusions that lie somewhere between these diverse views. Although it would be inaccurate to state that the etiology of asthma is entirely psychological, it would be a mistake to discontinue researching the role that psychological factors play in the experience of the disease. Asthma and panic disorder leads to increases in trait anxiety self-focus on bodily sensations, fear of bodily sensations, and anxiety sensitivity in comparison to controls or individuals with asthma only (Dorhofer, & Sigmon, 1998). This subject is of interest as asthma has increased over the last two decades. Despite therapeutic advances, morbidity and mortality are increasing (Global Initiative for Asthma [GINA], 2012), particularly due to the development of western standards of living, where psychological factors have regained notability (Busse et al., 2000). This brings about a worsening in psychological factors and quality of life which entails high socioeconomic costs (direct and indirect). Since the most remote times of medical history (French & Alexander 1941), it has been possible to determine a connection between asthma and emotional factors. Besides the epidemiological aspects and the determinant psychopathological issues of this illness, some of the main psychological factors that

influence and are influenced by this complex illness are reviewed in a multidimensional systemic vision (Gregerson, 2000; Jasnoski, Bell, & Peterson, 1994; Dirks, Kinsman, Horton, & Jones, 1978). Parallel to the importance given to biological factors, social and physical variables have also been enhanced, as have conditionings brought about by stress, which intervene and condition psychoneuroimmunohormonal mechanisms in the evolution of the illness (Goodwin & Eaton, 2003).In the most severe cases of asthma, psychological factors such as depression, anxiety, stress, psychopathology, psychiatric expression of asthma and side effects of medication will be implicated. In this context, the coping mechanisms involved, as well as different life events and other psychosocial conditions are of the utmost importance. The transformation of these people's lives inevitably involves their families, making problem solving difficult, and determining the outcome and the treatment of this pathology (Scott et al., 2007; Thomas, McKinley, Freeman, & Foy, 2011; Di Marco, Santus, & Centanni, 2011).On the other hand, less adapted behaviours become related to minor compliance in the care of asthma, which leads to the worsening of the symptoms of asthma, causing self-perpetuation mechanisms, with chronically inflammatory processes, pulmonary remodeling and irreversibility in the size of the airways (Rietveld, 2000; Fonseca et al., 2004). Therapeutically, in people with moderate to severe asthma, besides the usual, preventive and pharmacological approaches, it is essential to turn to psychoeducational and multifamily programmes, in order to increase the control of the illness, and allow more efficient treatment (Yorke, Fleming, & Shuldham et al., 2007; Smith et al., 2007). It is in this multisystemic context only by deepening the reciprocal relationships among psychological and biological, family and social factors can one find answers for the enormous complexity of the asthmatic illness. As a corollary of this, the confirmation that only a sufficiently widespread intervention that simultaneously combines the premises previously formulated, will allow an increased therapeutic effectiveness (Fernandes, 2009). It is important to continue to investigate antecedent, concomitant, and consequential psychological phenomena in the hopes of ultimately reducing the symptoms, suffering, and costs associated with asthma.

1.1 What is asthma?

Asthma is a disease of the airways – the breathing tubes that carry air into our lungs. Sometimes it is harder for a person with asthma to breathe in and out, but at other times their breathing is normal. Asthma is a long-term disease. Although there is currently no cure, with the right knowledge and good management, most people with asthma can lead full and active lives (National Asthma Council Australia [NACA], 2014).

According to American Lung Association (American Lung Association [ALA], n.d.), when you breathe, air passes through your nose and down your throat into your lungs. Inside your lungs are branching tubes called airways. With asthma, the airways are often swollen and red (or inflamed). This makes them extra sensitive to things that you are exposed to in the environment every day or asthma "triggers". A trigger could be a cold, the weather, or things in the environment, such as dust, chemicals, smoke and pet dander.

When someone with asthma breathes in a trigger, the insides of the airways make extra mucus and swell even more. This narrows the space for the air to move in and out of the lungs. The muscles that wrap around your airways can also tighten, making breathing even harder. When that happens, it's called an asthma flare-up, asthma episode or asthma "attack".

Asthma can start at any age. Sometimes, people have asthma when they are very young and as their lungs develop, the symptoms go away. But there is a possibility to come back later in life. Sometimes, people get asthma for the first time when they are older.

1.2 Different types of asthma

There are two main categories that "Asthma" can be divided into: Allergic Asthma, and Non-Allergic Asthma (Breathamerica, 2015).

1.2.1 Allergic asthma: Allergic Asthma (Extrinsic Asthma) occurs when asthma symptoms are triggered by an allergic reaction. An airway obstruction that is partially reversible with medication and is always associated with an allergy. This is the most common form of asthma, affecting more than half of all asthma sufferers.

1.2.2 Non-allergic asthma: Non-Allergic Asthma (Intrinsic Asthma) is the airway obstruction that is not caused by an allergic reaction. This type of asthma is caused by things like anxiety, stress, exercise, cold air, smoke viruses or other irritants. Many of the symptoms of allergic and non-allergic asthma are the same (coughing, wheezing, shortness of breath or rapid breathing, and chest tightness), and causes the same two secondary symptoms: irritated bronchi and airflow obstruction. The airway branches leading to the lungs, bronchi, get overly reactive and very sensitive, which causes the lungs to be inefficient when moving air in and out.

1.3 Causes of asthma:

According to ALA (n.d.), the exact cause of asthma is not known. Asthma tends to run in families and may be inherited, but environmental factors may also play a key role. Scientists continue to explore what causes asthma, but we do know that these factors play an important role in the development of asthma.

1.3.1 Genetics:

Asthma tends to runs in families. Genetics plays an important role in causing asthma. If your mom or dad has asthma, then you are more likely to have asthma too.

1.3.2 Allergies:

Some people are more likely to develop allergies than others, especially if your mom or dad had allergies. Certain allergies are linked to people who get asthma.

1.3.3 Respiratory infections:

As the lungs develop in infancy and early childhood, certain respiratory infections have been shown to cause inflammation and damage the lung tissue. The damage that is caused in infancy or early childhood can impact lung function long-term.

1.3.4 Environment:

Contact with allergens, certain irritants, or exposure to viral infections as an infant or in early childhood when the immune system in developing have been linked to developing asthma. Irritants and air pollution may also play a significant role in adult-onset asthma.

1.4 Prevalence of asthma

1.4.1 Asthma prevalence and demographics in Bangladesh:

Bangladesh is a country of 1, 47,570 square km with estimated population in 2013 more than 15.6 crore. More than 1,033 people live in every squire km. (Bangladesh Bureau of Statistics [BBS], 2011). It has seven divisions that conclude of 64 districts. In every division at least one government medical college gives health services to urban and rural people. Moreover, people get health service in various government and non-government hospital, medical college and clinics. An estimated 11.6 million people including 4.1 million children suffer from asthma related symptoms in Bangladesh (Khan et al., 2010). Asthma represents one of three types of chronic obstructive pulmonary disease. Other types include chronic bronchitis and emphysema.

1.4.2 Asthma prevalence and demographics around the world:

In India asthma was diagnosed in 2.28%, 1.69%, 2.05 and 3.47% respondents respectively at Chandigarh, Delhi, Kanpur and Bangalore, with overall prevalence of 2.38%. Female sex, advancing age, usual residence in urban area, lower socio-

economic status, history suggestive of atopy, history of asthma in a first degree relative, and all forms of tobacco smoking were associated with significantly higher odds of having asthma (Aggarwal et al., 2006). Prevalence of asthma in tannery workers is 5.3%. Approximately 0.3% - 7.9% of the population of the United States suffers from asthma (Cookson, 1987; Rees, 1980). Between 1965 and 1983, hospitalization rates for adults with asthma increased by 50%, whereas in children, the rates increased by 200% (Evans et al., 1987). This dramatic increase in asthma rates continued in the period between 1980 and 1987, when the prevalence of asthma in the United States increased by 29% (National Heart, Lung and Blood Institute,[NHLB] 1991). In addition, asthma-related death rates increased by 40% between 1982 and 1991 (Center for Disease Control [CDC], 1995). Researchers have yet to discover why the mortality rates have steadily increased. Approximately 63% of individuals with asthma experience symptom onset before the age of 15. In some studies, males appear to be slightly more prone to asthma (0.6% - 4.7% for men, 0.6 - 1.5% for women; Evans et al., 1987; Rees, 1980). However, other estimates of gender differences in asthma rates indicate that age may be an important factor as well. In one community sample, no significant gender differences were found for individuals younger than age 30 (Dodge & Burrows, 1980). However, for individuals between 30 and 50, the rates of active asthma for women were nearly double those for men (although this difference was not statistically significant). Beyond age 50, the rates for men again exceeded those for women (Pearlman & Bierman, 1988). Asthma is, therefore, a relatively common disease that is increasing in prevalence. The necessity of identifying factors that can reduce asthma morbidity and mortality is clear. It is particularly important to investigate correlates of asthma in a female population for several reasons. First, as described above, asthma rates may be higher for women in certain age groups (Dodge & Burrows, 1980). Second, approximately 75% of adults hospitalized for asthma are female (Skobeloff et al., 1996). Third, a larger increase in mortality rates was observed between 1982 and 1991 for women than men (59% for women, 34% for men; CDC, 1995). These differences in hospitalization and death rates indicate that there are additional factors beyond prevalence alone that account for gender differences in asthma severity and use of health care resources. Asthma remains a costly disorder. In 1976, total cost of asthma in the United States was estimated to be $1.3 billion dollars, By 1992, that figure, comprising inpatient hospital services and lost productivity, reached $6.2 billion (Weiss, Gergen, & Hodgson,

1992). With medical costs increasing yearly for the treatment of asthma, the prevention or curtailing of symptoms and attacks may serve to decrease these overall costs (Dirks & Kinsman, 1981; Kaptein, 1982). In summary, asthma rates, deaths due to the disease, and societal costs of the disorder have been on the rise according to research conducted over the past 30 years. Asthma is one of the most common chronic diseases in the world. It is estimated that around 300 million people in the world currently have asthma. Considerably higher estimates can be obtained with less conservative criteria for the diagnosis of clinical asthma. The rate of asthma increases as communities adopt western lifestyles and become urbanized. With the projected increase in the proportion of the world's population that is urban from 45% to 59% in 2025, there is likely to be a marked increase in the number of asthmatics worldwide over the next two decades. It is estimated that there may be an additional 100 million persons with asthma by 2025 (GINA, 2012).

1.5 Mental health problems and psychopathologies among asthma

1.5.1 Prevalence of mental health problems among Asthma

Epidemiological studies show that anxiety, depression and panic disorders are more common among people with asthma than in the general population (Nowobilski et al., 2007; Van Lieshout, & MacQueen, 2012). A large international population study found that, the relationship between asthma and mental disorders confirms that a range of common mental disorders occurs with greater frequency among persons with asthma. This study compared with those without asthma, people with asthma were approximately 1.6 times more likely to have a depressive disorder, approximately 1.5 times more likely to have an anxiety disorder, and approximately 1.7 times more likely to have an alcohol use disorder (Scott et al.,2007). Population studies have shown a higher prevalence of major depressive episodes among adolescents with asthma than adolescents without asthma (Delmas et al., 2011). Depression and anxiety disorders are common among people with severe asthma and may be either a consequence of, or a contributor to asthma. Data from a prospective birth cohort suggest that there is a positive correlation between the risk of mental health problems and asthma severity in children and adolescents (Goodwin et al., 2013). Population studies also suggest higher rates of behavioural problems in children with asthma than

the general population (Feitosa et al., 2011). Several studies have shown an association between asthma and attention-deficit hyperactivity disorder in children and adolescents (Schmitt et al., 2010). Approximately one in four (25.7%) pediatric asthma patients in an inner-city asthma clinic met criteria for a probable diagnosis of current anxiety disorders or common among 8.1%, panic among 14.9%, generalized anxiety disorder among 4.1%, agoraphobia among 5.4%, and 2.7% had depression (Goodwin, Messineo, Bregante, Hoven, & kairam, 2005).

1.5.2 Psychopathologies among asthma

Psychological dysfunction has been observed in asthma, with problems such as anxiety, depression and panic disorders being more frequent than in the general population (Nouwen, Freston, Labbe, & Boulet, 1999; Lehrer, Feldman, Giardeno, & Song, 2002; ten Brinke, Ouwerkerk, Bel, & Spinhoven, 2001; Lavoie et al., 2006). Patients with severe asthma who frequently use healthcare facilities show more psychological abnormalities, particularly anxiety, depression, and lack of trust towards healthcare providers (Lehrer et al.,2002; Lavoie et al., 2006). Psychological factors may trigger asthma symptoms and affect patients' asthma symptom perception, but also may influence medication compliance and, thus, should be detected and treated promptly and appropriately (Lavoie et al., 2006; Feldman et al., 2005; Nowobilski et al., 2007; Katon, Lin, & Kroenke, 2007). These conditions are associated with an increased use of urgent care and hospital admissions (Forbes, Shaw, & Dahl, 2007).

Van den Bergh and colleagues have shown that odors and other stimuli can serve as conditional stimuli for eliciting respiratory symptoms and complaints in healthy individuals as well as among individuals reporting hyperventilation complaints (Van den Bergh, Stegen, & van de Woestijne, 1997). Other studies have demon- striated conditioned respiratory responses to fear-relevant images or conditional stimuli associated with stress (Ley, 1994; D. J. Miller & Kotses, 1995; Stegen, De Bruyne, Rasschaert, van de Woestijne, & van den Bergh, 1999) and generalization of odor-conditioned responses to new odors (Devriese et al., 2000).

Depression and anxiety disorders are common in severe asthma and may be either a consequence of, or a contributor to, this condition (Heaney, Conway, Kelly, & Gamble, 2005; Nowobilski et al., 2007) reported that dyspnoea correlated with anxiety trait and anxiety state, neuroticism, and depression in asthmatic males but not in females. Furthermore, Katon et al., 2007) observed that youths with asthma have an almost two-fold higher prevalence of comorbid anxiety and depressive disorders compared with controls. Finally, in a prospective community-based cohort study of asthmatic subjects aged 19 and 40 yrs, asthma was associated with anxiety and panic disorder, while after adjusting for potentially confounding variables, active asthma also predicted subsequent panic disorder (Hasler et al.,2005).

Although studies have indicated that treatment of panic disorders can improve asthma outcomes, the authors of a Cochrane meta-analysis on the role of psychological interventions for children with asthma were unable to draw firm conclusions about the efficacy of this approach (Lehrer et al., 2008; Yorke et al., 2007; Rimington, Devis, & Lowe, 2001; Dahlem, Kinsman, & Horton, 1977). Studies reporting positive effects were usually conducted by specialists treating well-defined psychopathological comorbidities, whereas studies of psychoeducational interventions carried out by nonspecialists seemed less effective. Finally, more extreme forms of psychopathology, such as bipolar disorder, personality disorders and schizophrenia, have not been identified as occurring more commonly in severe asthma (Chanez et al., 2007; ten Brinke et al., 2001). Psychological distress and decreased feelings of control are common in asthma and are significantly associated with physical health status (Adams et al., 2004).

Psychological factors may influence the symptoms and management of asthma, and numerous pathways may contribute to the links between asthma and psychiatric disease states such as depression. The notion that emotional stress can precipitate or exacerbate acute and chronic asthma (Sandberg, Paton, & Ahola, 2000). It has been recognized anecdotally for many years. Psychological barriers, such as faulty symptom attribution, adoption or rejection of the sick role, and low self-esteem, may negatively impact treatment adherence. Conversely, the presence of a chronic and potentially life-threatening illness may exert enough stress that an anxiety or depressive disorder emerges in vulnerable patients. As a consequence, epidemiologic

associations between major depressive disorder (MDD) and asthma might be apparent but not reflect a shared pathophysiologic vulnerability. Alternatively, there may be aspects of dysregulation in key biologic systems, such as the neuroendocrine stress response or cytokine system, that predispose people to both asthma and psychiatric illness independent of the psychological impact of one chronic illness on the other. More provocatively, perhaps, there may be components of central or peripheral nervous system dysfunction that predispose people to asthma or worsen the course of asthma independent of behavioural response style or the experience of illness-related stress or depression.The prevalence of MDD is higher in people with asthma relative to the general population. Individuals with allergic disease also have higher rates of MDD than nonatopic individuals (Centanni, Di marco & Castagna, 2000; Timonen, Hakko, & Miettunen, 2001).

The presence of atopic disease increases the risk of depression in both men and women, although a more substantial body of evidence exists for the latter, (Timonen et al., 2001) in whom the prevalence of MDD is generally higher. Patients with MDD or the other common mood disorder, bipolar affective disorder, also have an increased risk of developing immunoglobulin (Ig) E-mediated allergic conditions, including asthma, than the general population (Bell, Jasnoski, Kagan & King, 1991; Matussek, Agerer, & Seibt et al., 1983; Yatham, Kennedy, & O'Donovan, 2006). Asthma and hay fever also occur more frequently in patients with mood disorders and their family members than in those with schizophrenia (Nasr, Altman, & Meltzer, 1981).

Unfortunately, the literature on the prevalence of psychiatric disorders in patients with asthma is complicated by a number of issues, not the least of which is the problem of accurately defining and detecting cases of both disorders. There is significant variation in the rates of MDD in patients with asthma that appears in part secondary to ascertainment issues. Population-based studies have not reported rates of comorbidity as high as studies that evaluated depression in a clinical cohort of patients with asthma, for whom lifetime rates of asthma have been recorded to be as high as 47% (Nejtek et al., 2001; Brown, Stevens, & Hass, 2001). This may represent an accurate reflection of the asthma population as it is possible that the overall rates of psychiatric illness in those with mild and well-controlled asthma are low, with elevated rates observed in patients surveyed in tertiary care clinical settings who are likely to have more severe and chronic asthma. Regardless, the fact that individuals with asthma

manifest higher rates of MDD and vice versa suggests that the two conditions may have shared pathogenic elements.

Further support for a link between asthma and MDD comes from family studies that suggest that the prevalence of one disorder is increased in the family members of index cases with the other. The initial evidence for this link came from mothers whose children had asthma but did not have MDD (Jessop, Riessman, & Stein, 1988). In some studies, rates of depression in family members were related to the severity of the child's asthma symptoms, raising the possibility that these were related to the stress of having an ill child (Leigh, & Marley, 1967; Meijer, 1981). Wamboldt and colleagues reported that mood but not ADs were increased in the relatives of adolescents with severe asthma and that the onset of these problems was equally likely to have occurred before as after the proband's asthma diagnosis (Wamboldt, Weintraub, Krafchick, & wamboldt, 1996). More recent studies provide further proof that the prevalence of mood disorders is increased in the parents of children with asthma (Brown et al., 2006) even when childhood mental illness is considered (Ortega, Goodwin, McQuaid, & Canino, 2004).

Evidence supporting a genetic link between asthma and depression comes from Wamboldt and colleagues' study of Finnish twin pairs in which they assessed the prevalence of atopic disease and depressive symptomatology (Wamboldt, Hewitt, Schmitz, 2000). They found a within-person correlation between atopic and depressive symptoms of 0.103 and, using a best-fit model, estimated that 64% of this association was due to shared familial vulnerability, mainly additive genetic factors.
Katon and colleagues conducted a review of the literature on the relationships between asthma and anxiety in children, adolescents, and adults (Katon, richardson, Loszano, & McCauley, 2004). They concluded that up to one-third of children and adolescents may meet the criteria for a comorbid AD. The rates of AD in adults with asthma ranged from 6 to 24%, although the studies had many of the same limitations as the studies of depression and asthma, including issues with small samples, ascertainment biases, and questionable methods of confirming the diagnosis of asthma or AD.

A study examined not only the rates of depression and anxiety in adolescents but also the likelihood that the comorbid psychiatric condition was recognized and treated (Katon, Richardson, & Russo, 2006). Only about one-third of youth with anxiety had the condition recognized within the last year, and only about one in five youth with MDD had adequate treatment. A commentary accompanying this article concluded that the methods used by Katon and colleagues were probably conservative in the estimates of rates receiving treatment, so the actual rates of treatment of MDD or anxiety in youth with asthma may be even lower than 20% (Kelleher, & Horwitz,2006). Thus, there appears to be a significant dissociation between studies that, despite limitations, suggest that anxiety and MDD occur frequently in asthma and studies that suggest that in routine clinical practice comorbid psychiatric conditions are infrequently recognized in patients with asthma and even less frequently treated.

Asthma has long been considered a condition in which psychological distress exerts a negative impact. Alterations in the stress axis, immune and autonomic nervous systems appear to be involved in the pathogenesis of each disorder and may contribute to the observed associations between these conditions. Although there is increasing recognition of the importance of treating psychological distress to optimize symptom control in people with asthma, there are few studies examining whether specific treatments for depression or anxiety can improve symptom control in asthma and result in better overall function and outcome (Van Lieshout & MacQueen, 2012).
Asthma is associated with reduced health-related quality of life. Furthermore, a summary of the literature suggests that people with both depression and asthma reported poorer health-related quality of life than people with asthma without depression (Opolski & Wilson, 2005). The severity of depression has also been shown to correlate with asthma control (Ford et al., 2003). This report summarizes the self-reported mental health data from adults in Montana with current asthma and the experiences of those with both current asthma and frequent mental distress (Trzcinska, Przyblski, Kozlowski, & Derdowski, 2012).

Asthma can result in physical, emotional, and social limitations for patients. These limitations can impair patient quality of life. In general, the quality-of-life impairment in asthma patients is proportional to the degree of disease activity. Results suggest that psychiatric disorders are prevalent among asthmatics and are associated with worse asthma control and quality of life. (Lavoie et al., 2005)

1.6 Theoretical perspective

1.6.1 Psychological approaches to asthma

A large proportion of the published research in the psychological literature relating to asthma focuses on examining how, why, and when psychological events influence the elicitation of asthma symptoms. One line of research considers how airway changes may occur due to psychological manipulations. A second line of research involves measuring the respiratory effects of exposing an individual with asthma to a particular type of imaginal or real aversive stimuli (e.g., mental arithmetic, imagination of aversive scenes, viewing a graphic movie). A third line examines how suggestion can lead to bronchoconstriction or bronchodilation. These three areas are discussed next.

Physiological mechanisms

If psychological stimuli produce airway changes in individuals with asthma, it is important to consider how these changes might occur physiologically. The autonomic nervous system regulates and controls alterations in lung function, and an increase in arousal may lead to a large change in airway smooth muscle tone (Erskine-Milliss & Schonell, 1981; McFadden, 1980a). Indeed, some researchers have conceptualized asthma as a malfunction of the autonomic nervous system (Holtzman, Sheller, Dimeo, Nadel, & Boushey, 1980; Nadel & Barnes, 1984). The sympathetic and parasympathetic nervous systems appear to control different portions and functions of the airways. The sympathetic system controls the lower or small airways, whereas the parasympathetic system controls the upper or large airways (Nadel & Barnes, 1984). Similarly, sympathetic nervous system activation leads to bronchodilation, whereas the parasympathetic nervous system produces bronchoconstriction (Erskine- Milliss & Schonell, 1981).

The vagus nerve is one of the 12 cranial nerves, and represents a key component of the parasympathetic nervous system (Scanlon, 1984). Connecting the brain with the lungs, the vagus nerve may represent the specific pathway by which emotion may lead to asthma symptoms (Erskine-Milliss & Schonell, 1981). When this nerve is directly stimulated, airway constriction results (Nadel, Cabezas, & Austin, 1971; Widdicombe, 1975). Constriction occurs due to the release of acetylcholine at the end of the vagus nerve, near the lungs McFadden, 1980a). The released acetylcholine is then received by receptors in the bronchial smooth muscle tissue, forming cyclic guanosine monophosphate. When an over abundance of guanosine monophosphate occurs, an imbalance with cyclic adenosine monophosphate results. It is this imbalance that leads to airway smooth muscle constriction (Scanlon, 1984). Release of acetylcholine from postganglionic cholinergic fibers of the vagus nerve may also trigger contraction of bronchial smooth muscle as well as mucus secretion (Harries, Parkes, & Lessof, 1981; Nadel & Barnes, 1984). Further evidence for the involvement of vagal activity is found in the cessation of bronchoconstriction by administration of substances that block the vagal efferent pathway (Mussell & Hartley, 1988; Widdicombe, 1975).Similarly, in animal research, cutting the vagus nerve results in bronchodilation (McFadden, 1980b).

Increases in vagal activity lead to more severe constriction of the upper airways than the lower airways (Nadel et al., 1971). Not all individuals with asthma exhibit alterations in lung function in response to psychological stimuli. Therefore, it has been suggested that those who do respond tend to experience more upper airway constriction (thus further implicating the parasympathetic nervous system; Lehrer et al., 1996). Evidence for parasympathetic system involvement in bronchoconstriction has been found in a variety of studies investigating the effects of stress and relaxation on bronchoconstriction. In a typical study, peak air flow is measured in controls who have been conditioned to tense or relax their facial muscles in response to a particular cue (Glaus & Kotses, 1983). As the face and throat muscles constrict (measured via electromyography), airway constriction results, leading to a decrease in peak air flow. Alternatively, when participants are asked to relax their facial muscles, bronchodilation results. Interestingly, other types of muscular tension and relaxation (e.g., limb muscle) do not produce alterations in lung function. One explanation for these findings is that sensory information from the facial muscles affects the vagus

nerve via trigeminal pathways (Kotses & Miller, 1987). However, it is possible that the role of the facial muscles in producing bronchoconstriction is a facet of the more general diving reflex. This reflex occurs in humans and other animals when the face is immersed in cold water, or cold pressure is applied to the forehead. As a result, the body conserves oxygen by slowing heart rate and limiting blood flow to all parts except the brain. In addition, bronchoconstriction occurs.

Further evidence implicating the vagus nerve in bronchoconstriction has been found in a study that used placebo bronchoconstrictor methodology. In this type of study, individuals with asthma are told that they will be inhaling a substance that provokes bronchoconstiction. In actuality, the substance is inert and should have no effect on lung function. Before the suggestion was given in this particular study, one group of participants was administered a substance known to block parasympathetic nervous system activity. By eliminating the action of the vagus nerve, the measurable effects of bronchoconstrictive suggestion were not observed (McFadden, Luparello, Lyons, & Bleecker, 1969). From these studies, evidence has accumulated suggesting that the vagus nerve and parasympathetic nervous system processes affect lung function. Parasympathetic nervous system involvement, specifically through stimulation of the vagus nerve, appears to be the conduit by which psychological stimuli lead to airways changes (e.g., Isenberg, Lehrer, & Hochron, 1992a, Lehrer et al., 1993). Increased arousal, possibly reflected in increased face and throat muscular tension, stimulates the vagus nerve. In turn, the vagus nerve sends chemicals to the lungs, which increase bronchoconstriction of the upper airways. Therefore, psychological stimuli appear to be capable of affecting the physiological mechanisms underlying asthma symptoms. Research exploring different psychological stimuli that have been utilized to produce asthma symptoms is summarized next.

Imagined and In-Vivo Stressful Tasks

The role of imaginal or in-vivo exposure to aversive or stressful events in the production of bronchoconstriction is well documented (e.g., Isenberg et al., 1992a; Kotses, Nestlund, & Creer, 1987). Individuals with asthma may exhibit increased air flow resistance when imagining symptoms of asthma, imagining the experience of a cough, or imagining emotions such as fear and anger (e.g., Creer, Rayholds, &

Kotses, 1991). Similarly, the performance of particular types of aversive tasks in a laboratory setting have been shown to lead to increased air flow resistance in individuals with or without asthma (Isenberg et al.,1992a).

In a typical experimental paradigm, individuals with or without asthma would view three films that varied in emotional content (i.e., children with asthma in the hospital, an industrial accident, and a mother deciding whether or not to put her infant up for adoption). In comparison to controls, individuals with asthma tend to respond to each of the three films with increased Rt, particularly during extremely emotional scenes (Levenson, 1979). More recently, Dorhofer, Sigmon, and Boulard (1997) found that women with asthma who listened to scenes depicting the experience of asthma and negative asthma-related situations (e.g., "You decide to go out with a friend. You go to a local bar, where most people are smoking. You feel your lungs tighten as you breathe in the smoky air.") exhibited decreased peak air flow and higher levels of anxiety in comparison to controls. These studies demonstrate that exposing individuals with asthma to emotional or asthma-related stimuli consistently reduces lung function compared to controls. Other types of aversive cognitive tasks have been utilized in asthma research. In one study, male college controls were assigned to perform either an easy or difficult arithmetic task (Kotses et al., 1987). The group that performed the difficult calculations exhibited significantly higher Rt. It should be noted that controls exhibit transient increased lung resistance as well when engaging in arithmetic tasks. Therefore, it appears that physiological responses of individuals with asthma are not qualitatively different from that of individuals without asthma. This pattern of lung resistance effects indicates that asthma studies that do not include controls may simply be measuring normal human responses, not a particular response caused by the pathology of asthma (Kotses, Hindi-Alexander, & Creer, 1989). Individuals who have asthma do, however, exhibit greater and more consistent increases in Rt in response to a variety of stimuli than controls. According to some researchers, a quantitative (i.e., occurring along a continuum), rather than qualitative, difference in response may occur (Isenberg et al., 1992a).

The type of aversive task used may result in different types of lung response. In a study of individuals with and without asthma (Lehrer et al., 1996), the effects on lung function, measured via forced oscillation, of active (e.g., mental arithmetic and

reaction time tasks) versus passive (e.g., watching 2 gory films) tasks were compared. Interestingly, when both groups engaged in active tasks, Rz decreased (resulting in better lung function) in comparison to the passive tasks. According to the researchers, active tasks may activate the sympathetic nervous system, which is responsible for the "fight or flight" response. Activation of this system may balance or override the effects of the parasympathetic system, leading to overall bronchodilation. In contrast, passive tasks may lead to increased parasympathetic activation that result in bronchoconstriction. Thus, the observed alterations in lung function may depend on the nature of the task utilized as a stressor. In general, it appears that a wide variety of aversive tasks lead to alterations in lung function. In many cases, these procedures lead to decreases in lung function, but in some cases, an increase may be noted. Further research would be helpful in order to make more definitive statements about the conditions under which bronchoconstriction versus bronchodilation will occur.

Placebo bronchoconstrictor studies

The role that placebos (neutral substances that an individual believes will have a real effect) may play in the development of bronchoconstriction has been widely studied. It is well known in both the medical and psychological literature that placebos are frequently capable of creating measurable psychological or physical alterations in an individual (e.g., Edmeads, 1984). In the study of asthma, a specific type of research has evolved wherein bronchoconstriction is induced in response to a placebo. In a typical research protocol, participants inhale a substance that is presented as either a neutral substance (control condition) or as a strong bronchoconstrictor (e.g., Kotses et al., 1989; Luparello, Lyons, Bleecker, & McFadden, 1968; McFadden et al., 1969; Miller & Kotses, 1990; Wigal, Kotses, Rawson, & Creer, 1988). In reality, the inhaled substance is inert (e.g., saline solution, distilled water, room air) in both conditions. At baseline and after the inhalation(s), airway function is measured via spirometry or peak flow. One early report indicated that full-blown asthma attacks were both induceable and reversible with the use of this methodology (Luparello et al., 1968). In this type of study, researchers hypothesize that the physiological mechanism responsible for the airway response is the vagus nerve, as the body responds to heightened arousal (Spector, Luparello, Kopetzky, Souhrada, & Kinsman, 1976). Subsequent studies, however, have not reported the occurrence of full-blown asthma

attacks. More frequently, less severe but measurable alterations in lung function occur. For example, a group of 29 individuals with asthma inhaled a saline solution on five occasions (Janson-Bjerklie, Boushey, Carrieri, & Lindsey, 1986). During the first (control) trial, participants were informed that they were inhaling an inert substance. During the second through fifth (suggestion) trials, participants were informed that they were inhaling a chemical in progressively increasing doses that would cause chest tightness and wheezing. Although no full-blown asthma attacks were noted, 34% of the participants responded to the suggestion with a clinically significant increase in airway resistance (i.e., greater than 20% above baseline). Similar studies have been conducted using variants of this basic methodology. Alterations in the focus of the experiments have led to the use of different types of inert substances (e.g., distilled water, saline) and different orders of control versus suggestion trials. Reviewing the use of saline as an inert substance, Isenberg et al. (1 992a) calculated that approximately 48% of participants responded to the suggestion trial with a clinically significant deterioration in lung function (20% decrease, e.g., Luparello et al., 1968; Luparello, Leist, Louie, & Sweet, 1970; McFadden et al., 1969; Philipp, Wilde, & Day, 1972). In comparison, only 17% responded to the control condition. A large number of placebo bronchoconstrictor studies have been reported in the asthma literature. Most studies report that a proportion of the participants exhibit some bronchoconstriction in comparison to baseline (e.g., Butler & Steptoe, 1986; Janson-Bjerklie et al., 1986; McFadden et al., 1969). According to a review of studies that used bronchoconstrictive suggestion, approximately 30 to 40% of participants exhibit temporary decreases in lung function in response to the suggestion (Isenberg et al., 1992a). However, these authors have suggested a more conservative average of 20% participant response, taking into account serious methodological problems. This low rate of responsiveness to the experimental manipulation greatly reduces the value of data obtained with this type of methodology for drawing conclusions about the contribution of psychological factors to asthma. A related methodology involves using a substance that will cause actual bronchoconstriction or bronchodilation. These substances are inhaled with either suggestion of bronchoconstriction or bronchodilation (e.g., receive bronchoconstrictor but told it is a bronchodilator; Luparello et al., 1970; Strupp et al., 1974). One experiment of this type involved participants inhaling methacholine, a known bronchoconstrictor, during two trials. During the first trial, participants were told that they were inhaling either a

bronchodilator or a bronchoconstrictor. During the second trial, participants were given the opposite suggestion. For example, one participant was given methacholine during two trials (Pastorello et al., 1987). During the first trial, he or she was told that the inhaled substance would produce difficulty in breathing. During the second trial, the participant was told that the inhaled substance would lead to easier breathing. Thus, individuals were given the same substance but were given two different suggestions about its possible effect. Airway responses to the trials were mixed. In comparison to baseline lung function, statistically significant changes did not occur after the trials. Normally, it would be expected that an individual would experience significant bronchoconstriction when inhaling methacholine. According to the authors, the absence of significant changes indicates that the suggestion prevents the expected bronchoconstriction. On the other hand, the lack of significant changes could be due to inconsistent physiological responses or heterogeneity within the sample. Many studies that utilize bronchoconstrictive suggestion use small samples and have other serious methodological flaws that reduce the impact of the manipulation. For example, individuals with asthma have hyperreactive airways that are irritated by a wide variety of stimuli. The effects of a particular methodology may not be directly attributable to the experimental manipulation. In addition, simply taking a deep breath before exhaling into a spirometer or other apparatus can cause transient air flow obstruction in some individuals (Gayrard, Orehek, Grimaud, & Charpin, 1975; Gayrard, Orehek, Grimaud, & Charpin, 1979; Orehek, Gayrard, Grimaud, & Charpin, 1975). Therefore, it is important to consider the effects of these flaws or confounds on the results presented in this literature. Confounds from the type of substance inhaled are frequently observed in placebo bronchoconstrictor studies. The use of nebulized saline as a control substance raises particular difficulties. Inhalation of saline causes bronchoconstriction for some participants, confounding the results (Lewis, Lewis, & Tattersfield, 1983). In some cases, participants respond with bronchoconstriction to both control and suggestion conditions as a result of warm saline's effects on the lungs. Unfortunately, response to the control substance in some cases eliminates any measurable placebo effect (Pastorello et al.,1987). Indeed, particular concentrations of saline have been suggested for use as a challenge task for measurement of airway hyperreactivity in individuals with asthma (Boulet, Legris, Thibault, & Turcotte, 1987; Schoeffel, Anderson, & Altounyan, 1981). Cooling of the airways has also been shown to cause bronchoconstriction (Deal, McFadden, Ingram,

Breslin, & Jaeger, 1980; Spector & Farr, 1974). Room temperature saline (20" C) and warm saline at 37" C produces different results. Bronchoconstriction as a result of suggestion only occurs when saline is cool, not when it is at room temperature (Lewis et al., 1983). Thus, when the type of substance inhaled in a control condition causes bronchoconstriction, the level of airway change due to the experimental manipulation is difficult to estimate. Another flaw commonly found in placebo bronchoconstrictor studies reflects the lack of estimates of the clinical significance of the reduction in airway function. A reduction of approximately 20% of peak air flow is considered to be indicative of impairment, and a reduction of 50% or more is likely to require emergency medical intervention (Isenberg et al., 1992a). However, few studies use these guidelines in assessing the degree to which participants responded. Control groups are rarely used in placebo bronchoconstrictor studies (e.g., Butler & Steptoe, 1986; Horton, Suda, Kinsman, Souhrada, & Spector, 1978; Janson-Bjerklie et al., 1986; Pastorello et al. 1987). This methodological oversight restricts the conclusions that can be drawn about responses of individuals with asthma versus individuals without asthma. Further research has shown that responses to suggestion occur in a similar manner in individuals without asthma (as described above), throwing further doubt on the utility of the placebo bronchoconstrictor methodology (Wigal, Kotses, Rawson, & Creer., 1988). In summary, although widely used, the placebo bronchoconstrictorl bronchodilator studies suffer from a lack of methodological soundness. Although a moderate percentage of individuals with asthma do appear to respond to these manipulations, the extent to which these findings are valid and generalizable is questionable. Thus, the results of this type of study must be interpreted cautiously. Currently, due to the variety of problems that commonly occur in placebo bronchoconstrictor studies, asthma researchers have been less likely to utilize this methodology. Rather, less intrusive stimuli (e.g., listening to aversive scenes, mental arithmetic) have been advocated when a task that affects lung function is to be studied (Dorhofer & Sigmon, in press). These stimuli may be more ecologically valid, similar to types of events that trigger asthma symptoms in everyday life. Emotional States and Asthma Symptoms Positive and negative emotional states may accompany or lead to symptoms of asthma. The relation between naturally occurring mood states (i.e., measured several times during the course of the day) and peak expiratory air flow has been investigated in several studies. Mood states and peak air flow are often measured at the same time during an

individual's usual daily activities. However, studies of this nature are generally correlational in nature. Frequently, individuals record their observations several times per day. In one study, boys in a treatment facility wore FM radio transmitters for 4 hours per day (Miklich, Chai, Purcell, Weiss, & Bradley, 1974). Approximately every 20 minutes, each boy was instructed via a transmitter to measure and record peak flow, as well as note mood. For 38% of the boys, significant negative correlations between emotional intensity and peak flow were found. More recent studies have generally corroborated the finding that peak flow and naturally occurring negative mood states are significantly correlated for some individuals with asthma (e.g., Hyland, 1990; Steptoe & Holmes, 1985). However, not all participants exhibit a negative correlation between mood state intensity and peak flow (as the mood becomes more intense, peak flow decreases). In addition, the type of mood state (e.g., anger, sadness, joy) accompanied by decreased peak flow may vary from individual to individual. For example, some individuals may exhibit decreased air flow while experiencing anger, whereas other individuals may exhibit decreased air flow while sad, happy, or during other emotional states (Steptoe & Holmes, 1985). A review of studies that induce emotional states in participants in the laboratory identified a subgroup of individuals with asthma (40%) who respond to emotional stimuli (e.g., induction of anger, fear, anxiety) with increased airway resistance (Isenberg et al., 1992a). The authors, however, did not hypothesize why only a subset of individuals with asthma exhibit lung function that correlates with negative mood states. An additional difficulty in interpreting the results of studies examining the moodpeak flow relation reflects the cyclical nature of this relation (ie., mood-peak flow relationship is stronger in the evening; Hyland, 1990). Studies of circadian rhythms in asthma have shown that for some individuals, asthma symptoms occur more frequently at night, with increased severity (Clark, 1985; Hetzel, 198 1; Hetzel & Clark, 1980). Thus, it is possible that time of day should be carefully considered in studies examining the relations between mood, suggestion, and bronchoconstriction. Overall, some evidence has been found for a negative correlation between a few types of positive and negative mood states and lung function. However, this research needs to be replicated and extended before stronger conclusions can be made. The heterogeneity of mood states correlated with reduced lung function warrants further investigation. Possibly, mood state may be another avenue by which facial muscle tension or general arousal affects the vagus nerve, leading to bronchoconstriction.

One mood state in particular (e.g., anxiety) has been studied extensively in individuals with asthma.

1.6.2 Relevance of psychological theories to asthma

A) Psychosomatic theories of asthma

Historically, an influential literature review on psychogenic factors in asthma (French & Alexander, 1941) strengthened the view of asthma as psychosomatic in nature. Using data from case studies, French and Alexander concluded that allergic and psychological factors worked in concert to produce asthma symptoms. In addition, they cited evidence of the efficacy of hypnosis in preventing asthma attacks in response to known allergens. According to psychoanalytic theory, individuals with asthma may be experiencing separation anxiety (expressed as a suppressed cry) that may lead to an attack (Purcell & Weiss, 1970; Turnbull, 1962). According to this view, treatment based on psychoanalytic theory could assist individuals with asthma in working through their unconscious conflicts, resulting in reduced numbers of asthma attacks (French & Alexander, 1941). However, empirical studies have failed to confirm the tenets of the psychosomatic theory of asthma (Creer, 1982). Over time, this view has been generally superseded by a biopsychosocial view which emphasizes genetic and biological components that may be responsible for the initial development of asthma (e.g., Matts, 1984; Rees, 1980). However, as discussed above, psychological and social stimuli may also have an effect on the severity of symptoms and the manner in which treatment is conducted. Two psychological models, dyspnedsuffocation fear theory and cognitive theory have been extended to the conceptualization of asthma severity and frequency.

Cognitive Theory

The cognitive theory of panic proposes that catastrophic misinterpretation of benign bodily sensations results in the experience of a panic attack (Clark, 1986). Extending this theory to asthma, it is possible that individuals with asthma and a tendency to misinterpret symptoms may experience more frequent and more severe asthmatic episodes. Mislabeling non-asthma related bodily sensations as symptoms of asthma

may have serious consequences. In studies of asthma inpatients, 19% - 27% consistently mislabeled relatively benign bodily symptoms (e.g., fatigue, worry, irritability, anxiety) as an asthma attack. Those individuals who exhibited this tendency to mislabel symptoms were more likely to be rehospitalized for asthma at a 6-month follow-up. Forty to 84% of the mislabelers were rehospitalized by 6 months, whereas only 29% - 40% of the nonmislabelers were rehospitalized. There was no measured difference between symptom mislabelers and non-mislabelers in lung function (Dirks & Schraa, 1983). In individuals with asthma, the consequences of symptom misinterpretation may be due to the anxiety45 producing effects of the catastrophic interpretation of benign sensations that may lead to increased bronchoconstriction. According to Clark (1993), there are three criteria that must be fulfilled in order to demonstrate cognitive mediation of panic attacks induced by biological challenge tasks:

1) panic disorder patients have a stronger tendency to misinterpret certain bodily sensations than controls;
2) that thoughts based on the misinterpretation of bodily sensations accompany challenge induced panic attacks; and
3) that experimental manipulations of cognitive variables have an influence on whether or not an individual panics during a biological challenge test (Clark, 1993, p. 76).

Clark (1993) provides evidence that these three criteria have been fulfilled in the research on panic disorder. Thus, strong support for cognitive mediation of panic attacks during biological challenge tests has been reported in the panic literature.

Criterion one: Criterion one has been confirmed through research utilizing the modified Interpretations Questionnaire (Butler & Matthews, 1983). This questionnaire assesses the extent to which individuals interpret ambiguous internal and external stimuli as threatening. Individuals with panic disorder tend to mistakenly interpret bodily sensations as symptoms of an approaching physical or mental catastrophe more than individuals with other types of anxiety disorders or controls (Clark, 1993). Research with expanded versions of the Interpretations Questionnaire revealed that individuals with panic disorder are less likely to be able to reinterpret stimuli as

nonthreatening once they have made an anxiety-related response (e.g., Kamieniecki, Wade, & Tsourtos, 1997).

Criterion two: The second criterion (thoughts based on the misinterpretation of bodily sensations are present during challenge induced panic attacks) has also been supported. Individuals with panic disorder were exposed to feared situations (e.g., walking alone into a supermarket). Participants completed measures of their level of fear, a checklist of bodily sensations, and a checklist of fearful cognitions after each trial. Approximately 73% of the panic attacks experienced by the participants were accompanied by self-reports of fearful cognitions (Rachman, Lopatka, & Levitt, 1988). Significantly more fearful cognitions were reported on the trials that led to panic than those that did not, indicating that panic is generally accompanied by these types of catastrophic cognitions.

Criterion three: The third criterion (manipulating cognitions either leads to or prevents panic attacks in experimental settings) is perhaps the most important of the three criteria. Yet, this hypothesis has been more difficult to unambiguously support. Many studies have revealed that the manipulation of cognitive variables can affect the likelihood of panic symptoms or attacks during challenge tests (Margraf, 1993; Salkovskis & Clark, 1990; van der Molen, van den Hout, Vroemen, Lousberg, & Griez, 1986). To test this hypothesis, studies alter the information participants are given before a challenge task begins. Instructing two groups of controls that the sensations of hyperventilation are either symptoms of impending fainting or signs of a higher state of consciousness produce very different results (van der Molen et al., 1986). Although the same bodily sensations and changes in heart rate and pCO2 were produced in both groups, these sensations were rated as either pleasant or unpleasant, depending entirely on the instructions given (Salkovskis & Clark, 1990). A similar study examined the effects of instructions on self-reported mood in response to sodium lactate infusion. Two groups of controls were informed that they would either experience anxious tension or pleasant excitement in response to the infusion. As was expected, the group that received the anxious tension suggestion reported significantly higher levels of negative, anxious mood. Expectations about what symptoms a C02/02 challenge task will produce also alter the likelihood of experiencing a panic attack. Individuals with either panic disorder or social phobia were given one of two different

explanations of the symptoms they would experience as a result of C02/02 inhalation (e.g., Rapee, Mattick, & Murell, 1986). The first explanation gave the individual no expectation about what he or she would experience, whereas the second explanation listed symptoms that are commonly reported during a panic attack. After the inhalation trial, participants were given a list of 10 neutral and panic related cognitions and were asked to indicate what went through their mind when they began to feel the bodily sensations associated with the gas. Individuals in both conditions reported similar levels and types of bodily sensations. However, many more of the individuals who were in the "no explanation" condition experienced a panic attack. The cognitions reported by this group were significantly more likely to be catastrophic in nature (Rapee et al., 1986). The results of this study provide strong evidence that an individual's fearful cognitions in an ambiguous situation can lead to panic symptoms. Conversely, if an individual can attribute ambiguous bodily sensations to a known cause, then he or she may be less likely to have a panic attack. Cognitions about situational control may also alter the anxiety responses of individuals with panic disorder. In one study, participants were allowed to "turn down" the level of C02 they were receiving if a light turned on (for half the participants, the light never turned on; for the others, the light was turned on during the entire procedure; Sanderson, Rapee, & Barlow, 1989). In actuality, the dial did not alter the C02 level in any way. However, participants who believed they had control over the gas reported fewer and less severe symptoms of panic, less resemblance to panic sensations, and fewer occurrences of actual panic attacks (Sanderson et al., 1989). Studies of this type provide support for the role that cognitions play in the production or reduction of panic symptoms and attacks. In addition, anticipating the negative effect of C02 inhalation can produce increased self-reports of physiological responses that indicate increasing levels of anxiety. In comparison, when neutral expectations are fostered for participants with panic disorder, hyperventilation does not result in strong physiological responses (Margraf, 1993). Thus, it appears that it is negative interpretations of bodily sensations that lead to the experience of panic. The symptoms of hyperventilation or any other experience alone do not result in a panic attack.

Suffocation fear theory

Ley (1989) proposed the suffocation fear theory to explain the occurrence of panic attacks. In later articles, three types of panic attacks were described in order to account for individual differences in panic symptoms (Ley, 1992a; 1992b). Currently, the suffocation fear theory is most applicable to one of the three types of panic attacks, or hyperventilatory panic attacks (Ley, 1989). Because of the similarity of symptom experience between panic attacks and asthma, this theory has since been extended to asthma. Dyspnea is a commonly reported sensation during a panic attack (de Ruiter, Garssen, Rijken, & Kraaimaat, 1992; Ley, 1989). According to the suffocation fear theory, the fear that accompanies a panic attack results from severe dyspnea that is induced by hyperventilation. The panic attack itself occurs when an individual feels that he or she has little or no control over the dyspnea (Ley, 1998). Further evidence for the role of dyspnea in panic comes from observations of the frenzied activity that can occur during a panic attack (Ley, 1989). Ley hypothesizes that this activity may serve to increase metabolic C02 levels, thus reducing the sensation of dyspnea. However, recent studies involving panic challenge tasks have utilized C02- enriched air to provoke panic-related sensations. Conversely, during relaxation, metabolic C02 levels are known to decrease. This decrease may account for the experience of panic cued by relaxation or those occurring during sleep (Ley, 1988a; 1988b). Although these findings appear contradictory, Ley describes how CO2 inhalation may produce both panic-related sensations and Pleasant sensations (Ley, 1989). For approximately 1 minute after inhaling C02-enriched air; participants generally report experiencing the sensation that breathing is uncontrollable, leading to acute anxiety. During this time, heart rate increases, dissipating the C02. After the first minute, when C02 levels decrease, participants may report a pleasant relaxation state. Excluding catastrophic cognitions, dyspnea and any resultant experience of fear are posited to be the sole triggers for hyperventilatory panic attacks. According to Ley (1989), common cognitions reported during panic (that are of central importance in the cognitive theory of panic) may actually be due to cerebral hypoxia that occurs as a result of hyperventilation. In contrast, other researchers argue that dyspnea, hyperventilation, and tachycardia (frequently observed in response to hyperventilation) are produced by cooling or water loss that occurs during overbreathing, it is just as likely that dyspnea leads to hyperventilation as vice versa.

Regardless of which explanation is correct, individuals who experience panic attacks report that they notice dyspnea and/or other physiological symptoms before experiencing fear (Ley, 1985). According to the suffocation fear theory, the proposed sequence of events in a panic attack is as follows: Hyperventilation + fear + sensations + catastrophic cognitions. To test the tenets of the suffocation fear theory, Carr, Lehrer & Hochron (1992) investigated dyspnea in individuals with panic disorder, asthma, and controls. The researchers hypothesized that the high rate of concordance of panic disorder in individuals who have respiratory disorders may be due to the experience of dyspnea. Tests of pulmonary function and self-report of mood during and after a relaxation task revealed that compared to controls, individuals with asthma and individuals with panic disorder exhibited similar levels of dyspnea and similar levels of psychopathology. Results indicated that although individuals with asthma or panic disorder report comparable levels of dyspnea, panic symptoms are accounted for by different factors. A significant amount of variance in panic symptoms in individuals with asthma is explained by dyspnea, but not for individuals with panic disorder. In other words, panic symptoms in asthma may be due to dyspnea, but in panic disorder, they are not due to dyspnea levels. This difference in the contribution of dyspnea to the experience of panic symptoms suggests that the suffocation fear theory (rather than explaining panic attacks) may be better utilized to more fully understand dyspnea and its relation to asthma. According to Ley (1 994), however, individuals in the above study were selected according to DSM-111-R criteria for panic disorder, not for their experience of hyperventilatory panic attacks. Thus, Ley argues, the lack of support for the suffocation fear theory in relation to panic disorder is due to this methodological flaw. In rebuttal Carr and Lehrer (1994) point out that Ley's (1992a; 1992b) subtypes of panic attacks have yet to be empirically validated. Furthermore, Carr, Lehrer, Rausch, and Hochron (1994) argued that individuals in both the panic disorder and asthma groups reported a level of dyspnea that was significantly greater than controls. Thus, individuals in the panic disorder group did indeed experience a high level of dyspnea. It is possible; however, that this sample was generally composed of individuals experiencing hyperventilatory panic attacks. Overall, the results of these studies must be replicated and extended in order to determine the specific role of suffocation fear in asthma and panic disorder.

b) Social cognitive theory

Social cognitive theory (SCT) has been used to inform and explore chronic disease self-management programs (Clark et al., 1997) and is established as an important theory for understanding not only health behavior change but also the underlying processes within individuals that bring about this change. SCT posits that individuals learn through watching others and that behavior results from the relationship between 3 main factors: personal, behavioural and environmental (Bandura., 1996). Briefly, these constructs begin with an individual's personal/cognitive characteristics such as the way a person processes and perceives information. The construct of self-efficacy, an individual's confidence or belief in their own capabilities, is central to this element. Next, the environment refers to the physical or social factors that are external to the person, but that can have an impact on behavior. For this study, behavior refers to the uptake of asthma self-management strategies and recognizes that this can be achieved through observational learning - learning through direct experience, watching others (modeling), or even vicariously (through media exposure). SCT suggests that cognition/personal factors, behavior, and environment influence one another in a fluid and reciprocal manner.

1.7 Operational definitions:

1.7.1 Mental health

Mental health is an integral and essential component of health. It is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. World Health Organization stressed on the positive dimension of mental health in its definition of health (World Health Organization [WHO], 2010) as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". An important consequence of this definition is that mental health is described as more than the absence of mental disorders or disabilities.

1.7.2 Asthma patients

In this study, asthma patients mean all types of asthma patients' diagnosed by the doctor or asthma specialists.

1.7.3 Adult

In this study, adult means the participants, who are eighteen years old or above.

1.7.4 Healthy individual

In this study, healthy individual means the participant who has no disease.

1.7.5 Health-related quality of life

Health-related quality of life (HRQoL) is a multi-dimensional concept that includes domains related to physical, mental, emotional and social functioning. It goes beyond direct measures of population health, life expectancy, and causes of death, and focuses on the impact health status has on quality of life. In congruence with the WHO's definition of health, health-related quality of life refers to the overall conditions of the quality of life of ill or healthy individuals in accordance with the following eight domains: (a) limitations in physical activities because of health problems, (b) limitations in social activities because of physical or emotional problems, (c) limitations in role activities because of physical health problems, (d) bodily pain, (e) general mental health, (f) limitations in role activities because of emotional problems, (g) vitality, and (h) general health perceptions of an individual or a group measured in terms of feelings of satisfaction or dissatisfaction (Ware & Sherbourne, 1992).

1.7.6 Psychiatric disorder:

Mental disorders comprise a broad range of problems, with different symptoms. However, they are generally characterized by some combination of abnormal thoughts, emotions, behaviour and relationships with others. Examples are

schizophrenia, depression, intellectual disabilities and disorders due to drug abuse. Most of these disorders can be successfully treated (WHO, 2016).

According to the definition of Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), a mental disorder is a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress or disability or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom (American Psychiatric Association [APA], 1994).

According to the definition of Diagnostic and Statistical Manual of Mental Disorders (DSM-V), a mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above (APA, 2013).

1.8 Rationale of the study:

From the intensive literature review, it was seen that Asthma patients experience different types of mental disorders and problems. There has no study on psychiatric status and health-related quality of life of asthma adult patients in outdoor multi-settings in Bangladesh. Therefore, it may be a revelation study in the country. The study can reveal the psychiatric morbidity among asthma out patients in multi-settings that can help to develop the treatment capacity for regarding patients. The global associations between asthma and psychological conditions have both public health and individual clinical importance. By intervening potential psychological issues, it might be able to prevent the occurrence of some asthma cases. Whereas among asthma patients, properly recognizing the existence of psychological issues can both improve patients' quality of life and prevent further complications from the

comorbidity. The comorbidity of psychological disorder and asthma could place a compounding financial burden in many nations' health care systems.

However, there are no or very few psychological services provided by the individual referral of asthma patients. Therefore, the study will help to strengthen the existing psychological services and will also help to find out where there is a need for generating different types of psychological services for these patients. This study will stress the importance of incorporating psychological services for the asthmatic patients. Specially, it will help to demonstrate the role of clinical psychologists for asthma management along with physicians. This study can make doctors awareness of making appropriate referrals to the psychological services. This study will help to highlight the potential areas for further researches.

The overall rates of psychiatric illness in those with mild and well-controlled asthma are low, while elevated rates are observed in patients surveyed in tertiary care clinical settings who are likely to have more severe and chronic asthma. So this study may reveal an accurate reflection of the psychiatric morbidity among asthma out patients in multi-settings.

The rate of asthma increases as communities adopt western lifestyles and become urbanized. So, there is likely to be a marked increase in the number of asthmatics worldwide over the next two decades. It is estimated that there may be an additional 100 million persons with asthma by 2025 (GINA, 2012). Quality of life is an important consideration in medical care. Some medical condition like asthma can seriously impair their quality of life rather than healthy individuals.

This knowledge can be used to pursue the policy makers and other stakeholders for developing effective preventive and clinical strategies to better prevent and manage the conditions among patients and populations as a whole.

1.9 Objective of the present study:

The present study is aimed to see the psychiatric morbidity and the impact on quality of life of asthma outpatients. In brief, the general objectives and the specific objectives are given below.

1.9.1 General objectives of the present study:

1. To determine the common mental disorders among asthma patients attending the outpatient service
2. To evaluate associations between the psychiatric status and health-related quality of life (HRQoL) of adults suffering from asthma
3. To determine health-related quality of life (HRQoL) of asthma patients compared with control

1.9.2 Specific objectives of the present study:

2. To find out whether mental health problems varies between female and male asthma patients
3. To find out whether health-related quality of life varies between female asthma patients and female control group
4. To find out whether health-related quality of life varies between male asthma patients and male control group
5. To find out whether health-related quality of life varies between female and male asthma patients
6. To find out whether health-related quality of life varies between male and female patients according to psychiatric status

METHODOLOGY

2.1 The Sample:

Initially eight divisions were selected for data collection. The outdoor adult patients aged 18 and older were included from selected medical colleges, hospitals and asthma institutes or clinic in each division of Bangladesh. Hospitals and clinics were selected according to the availability of asthma patients and respiratory medicine specialists or doctors. Healthy individuals for control group were selected from each division and nearby areas from where asthma patients were included. The asthma patients who were already diagnosed by doctors or respiratory medicine specialists were included in the study. Patients were excluded from the study if they were drug abusers or suffering from a major comorbidity (i.e., human immunodeficiency virus (HIV) co-infection, rheumatic disease, psychiatric disease or previously diagnosed psychiatric diseases, TB, Diabetic, hypertension or malignancy) or any other current general medical condition. The healthy individuals were matched according to their age and sex. Only outdoor patients were included in this study. Total sample size for this study was eight hundred. The sampling area map and the distribution of the sample of the districts are given below in table 1.

Table 1: Sampling area map and sample size of divisions

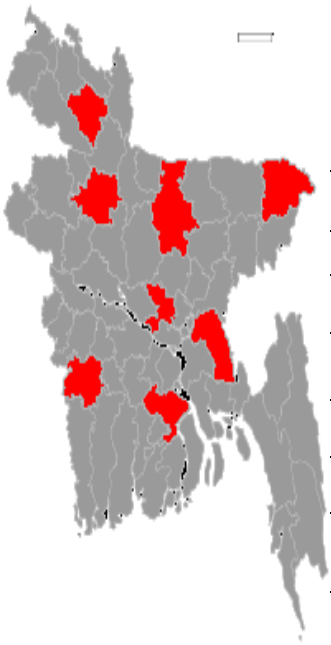
	Divisions of Data Collection	District of Data Collection	Sample Size for Patient (Asthma) Group	Sample Size for Control (Healthy Individual) Group
	Dhaka	Dhaka	50	50
	Khulna	Jessore	50	50
	Mymensingh	Mymensingh	50	50
	Rajshahi	Bogra	50	50
	Barisal	Barisal	50	50
	Chittagong	Comilla	50	50
	Rangpur	Rangpur	50	50
	Sylhet	Sylhet	50	50
	Total		**400**	**400**

Table 1 shows sampling area map and sample size of divisions

2.1.1 Characteristics of the sample:

The characteristics of the sample, divided by gender, occupation, education, marital status, monthly income, family structure, religion and living area were obtained during the interview from the divisions. The demographic characteristics of the final sample are given in table 3 whilst table 2 shows the mean age of the sample.

Table 2: Study sample mean age according to divisions

Division	Gender	Group	Mean Age	N
Sylhet	Female	Patient	37.80	25
		Control	37.88	25
		Total	37.84	50
	Male	Patient	39.60	25
		Control	39.80	25
		Total	39.70	50
	Total	Patient	38.70	50
		Control	38.84	50
		Total	38.77	100
Chittagong	Female	Patient	46.72	25
		Control	44.84	25
		Total	45.78	50
	Male	Patient	43.36	25
		Control	42.60	25
		Total	42.98	50
	Total	Patient	45.04	50
		Control	43.72	50
		Total	44.38	100
Rangpur	Female	Patient	33.92	25
		Control	33.48	25
		Total	33.70	50
	Male	Patient	41.20	25
		Control	41.16	25
		Total	41.18	50
	Total	Patient	37.56	50
		Control	37.32	50
		Total	37.44	100

Table 2: Continued

Rajshahi	Female	Patient	41.20	25
		Control	41.00	25
		Total	41.10	50
	Male	Patient	44.52	25
		Control	42.88	25
		Total	43.70	50
	Total	Patient	42.86	50
		Control	41.94	50
		Total	42.40	100
Barisal	Female	Patient	41.52	25
		Control	41.76	25
		Total	41.64	50
	Male	Patient	48.20	25
		Control	48.16	25
		Total	48.18	50
	Total	Patient	44.86	50
		Control	44.96	50
		Total	44.91	100
Khulna	Female	Patient	37.08	25
		Control	37.08	25
		Total	37.08	50
	Male	Patient	45.72	25
		Control	45.92	25
		Total	45.82	50
	Total	Patient	41.40	50
		Control	41.50	50
		Total	41.45	100
Mymensingh	Female	Patient	40.28	25
		Control	40.64	25
		Total	40.46	50
	Male	Patient	40.04	25
		Control	39.96	25
		Total	40.00	50
	Total	Patient	40.16	50
		Control	40.30	50
		Total	40.23	100

Table 2: Continued

Dhaka	Female	Patient	39.20	25
		Control	38.96	25
		Total	39.08	50
	Male	Patient	42.88	25
		Control	41.00	25
		Total	41.94	50
	Total	Patient	41.04	50
		Control	39.98	50
		Total	40.51	100
Total	Female	Patient	39.72	200
		Control	39.46	200
		Total	39.59	400
	Male	Patient	43.19	200
		Control	42.69	200
		Total	42.94	400
	Total	Patient	41.45	400
		Control	41.07	400
		Total	41.26	800

Table 2 shows mean ages of the sample from all divisions

As it showed in table 2, the mean age of the sample collected from Sylhet division was 38.77 where female was 37.84 and male was 39.70. The mean age of patient group was 38.70 and control group was 38.84. The mean age of the sample collected from Chittagong division was 44.38 where female was 45.78 and male was 42.98. The mean age of patient group was 45.04 and control group was 43.72. Here, the mean age of the sample collected from Rangpur division was 37.44 where female was 33.70 and male was 41.18. The mean age of patient group was 37.56 and control group was 37.32. The mean age of the sample collected from Rajshahi division was 42.40 where female was 41.10 and male was 43.70. The mean age of patient group was 42.86 and control group was 41.94. The mean age of the sample collected from Barisal division was 44.91 where female was 41.64 and male was 48.18. The mean age of patient group was 44.86 and control group was 44.96. The mean age of the sample collected from the division of Khulna was 41.45 where female was 37.08 and male was 45.82. The mean age of patient group was 41.40 and control group was 41.50. The mean age of the sample collected from Mymensingh division was 40.23 where female was 40.46 and male was 40.00. The mean age of patient group was

40.16 and control group was 40.30. The mean age of the sample collected from Dhaka division was 40.51 where female was 39.08 and male was 41.94. The mean age of patient group was 41.04 and control group was 39.98.

In table 2, the mean age of total sample was 41.26 where female was 39.59 and male was 42.94. The mean age of patient group was 41.45 and control group was 41.07.

Table 3: Baseline characteristics of the sample

Characteristics		**Patient Group (n=400)**	**Control Group (n=400)**
		Frequency (%)	**Frequency (%)**
Gender	Male	200 (50%)	200 (50%)
	Female	200 (50%)	200 (50%)
Occupation	Government Job	22 (5.5%)	17 (4.2%)
	Non-Government Job	48 (12%)	84 (21%)
	Small Business	9 (2.2%)	14 (3.5%)
	Big Business	36 (9.0%)	24 (6.0%)
	Teacher	13 (3.2%)	36 (9.0%)
	Farmer	43 (10.8%)	35 (8.8%)
	Day Labor/ field worker	7 (1.8%)	6 (1.5%)
	Rickshaw puller/industrial worker/Transport worker / Fisher man/Black Smith/Potter/Weaver	11 (2.8%)	5 (1.2%)
	Student	36 (9.0%)	9 (2.2%)
	House wife	149 (37.3%)	145 (36.2%)
	Garment's worker	5 (1.2%)	0 (0.0%)
	Others	21 (5.2%)	25 (6.2%)
Education	None	40 (10%)	35 (8.8%)
	Able to write and read	73 (18.2%)	51 (12.8%)
	Class 1 to 5	44 (11%)	63 (15.8%)
	Class 6 to 9	52 (13%)	42 (10.5%)
	S.S.C/Equivalent	59 (14.8%)	41 (10.2%)
	H.S.C/Equivalent	50 (12.5%)	29 (7.2%)
	Graduation/Honors/Equivalent	52 (13%)	87 (21.8%)
	Post Graduates and above	30 (7.5%)	52 (13.0%)

Table 3: Continued

Marital Status	Married	307 (76.8%)	336 (84.0%)
	Single	55 (13.8%)	45 (11.3%)
	Divorced/Widow/Widower	3 (0.7%)	2 (0.5%)
	Forsaken/abandoned	35 (8.7%)	17 (4.2%)
Monthly Income	Higher Class (25001-above	143 (35.8%)	65 (16.2%)
	middle Class -10001-25000)	144 (36.0%)	187 (46.8%)
	Lower Class (up to 10,000)	113 (28.2%)	148 (37.0%)
Family Structure	Extended Family	167 (41.7%)	161 (40.2%)
	Nuclear Family	233 (58.3%)	239 (59.8%)
Religion	Muslim	379 (94.8%)	357 (89.3%)
	Hindu	21 (5.2%)	37 (9.2%)
Living Area	City	170 (42.5%)	117 (29.2%)
	Town	17 (4.3%)	36 (9.0%)
	Village	213 (53.2%)	247 (53.7%)
	Total	**400 (100%)**	**400 (100%)**

Table 3 shows the demographic characteristics of the sample

Table 3 showed that the male and female ratio in every group was same (50%). In patient group, more than 37% were housewives, 12% were non-government job holder, 10.8% were farmers, 9% were students, 9% were doing big businesses, 2.2% were involved with small businesses, 5.5% were government job holder, 3.2 % were teachers, 2.8% were rickshaw pullers or industrial workers or transport workers or fisher man or black smiths or Potters or weavers, 1.2% were garment workers and 1.8% were day labours or field workers. In healthy individual group, the data was collected from 36.2% housewives where 21% were doing non-government job, 4.2% were government job holder, 9% were teachers, 6% were doing big businesses, 3.5% were involved with small businesses, 8.8% were farmers, 2.2% were students, 1.5% were day labours or field workers, 1.2% were rickshaw pullers or industrial workers or transport workers or fisher man or black smiths or Potters or weavers and 6.2% were others in the same group. Note that lawyers, doctors, engineers, retired persons and midwives etc were included in ‘others’.

In patient group, 14.8% studied S.S.C or equivalent, 12.5% passed H.S.C or equivalent exam, 13% were educated up to class 6 to 9, 11% were educated up to class 1 to 5, where 13% completed graduation or equivalent degrees, 7.5% had post graduate or above degrees. Table 2 showed 10% had no education in patient group where 18.2% could write and read.

In control group, 8.8% were uneducated, 12.8% could write and read, 15.8% read up to class 1-5, 10.5% studied up to class 6-9 and 10.2% had secondary school certificate or equivalent, 7.2% had H.S.C level educational background. Here 21.8% were graduated and 13% had post-graduation or above degrees.

Table 3 also showed that 76.8% of patient group were married, 13.8% were unmarried, 8.7% were forsaken or abandoned and 0.7% were divorced, widow or widower. In control group, 84% were married, 11.3% were single, 4.2% were forsaken or abandoned and 0.5% were divorced, widow or widower.

The divisions of social class had been made according to the participants' monthly income in table 3. It showed that family income of 36% asthma patients' (middle class family) was between 10,001 to 25,000 taka. 35.8% patient (higher class) of above 25,000 taka earning and 28.2% (lower class) of up to 10,000 taka monthly earning were in the patient group. In control group, information of 16.2% healthy individuals from higher class, 46.8% from middle class and 37% from lower class were also recorded for the study.

According to the family structure as recorded in the study, 58.3% were from nuclear families and 41.7% were from extended families in the patient group. In control group, 59.8 % healthy individuals from nuclear family and 40.2% from extended family participated in the study. Among the sample, 94.8% Muslims and 5.2% Hindus were included in the patient group while 89.3% Muslims, 9.2% Hindus were in the control group. According to the living area, 53.2% were from the villages, 42.5% were from the cities and 4.3% were from the towns (smaller than the cities) as recorded in the patient group. In the control group, 53.7% were from the villages, 29.2% were from the cities and 9% were from the towns.

Table 4: Baseline characteristics of the sample personal habits

Characteristics	Patient Group (n=400)		Healthy Individual for Control Group (n=400)
	Frequency (%)		Frequency (%)
Personal Habits			
Current Smoker	Yes	57 (14.2%)	110 (27.5%)
	No	343 (85.8%)	290 (72.5%)
Excessive intake Non Alcoholic / Carbonated drinks regularly	Yes	56 (14.0%)	30 (7.5%)
	No	344 (86.0%)	370 (92.5%)
Regular Physical work	Yes	282 (70.5%)	275 (68.8%)
	No	118 (29.5%)	125 (31.2%)
Physical exercise	Yes	59 (14.8%)	45 (11.2%)
	No	341 (85.2%)	355 (88.8%)
Spending maximum day time in smoky & dusty area	Yes	223 (55.8%)	78 (19.5%)
	No	177 (44.2%)	322 (80.5%)
Family History of Asthma	Yes	201 (50.2%)	138 (34.5%)
	No	199 (49.8%)	262 (65.5%)
Family History of Psychiatric Disorder	Yes	89 (22.2%)	66 (16.5%)
	No	311 (77.8%)	334 (83.5%)

Table 4 shows the baseline characteristics of the sample personal habits

Table 4 showed that 57 current smokers (14.2%) and 343 patients, who were not current smokers (85.8%), were included in the study. In the control group, 110 healthy individuals (27.5%) were currently smokers and 290 were not so (72.5%). In the patient group, 56 person were included who drink non alcoholic/ carbonated drinks excessively (14.0%) and 344 patients did not intake drink excessively (86.0%). In the control group, only 30 healthy individuals were used to who drink non

alcoholic/ carbonated drinks intake excessively (7.5%) where 370 persons told not to have so (92.5%).

According to table 4, there were 282 patients (70.5%) and 275 healthy individuals (68.8%) did physical work regularly and 118 patients (29.5%) and 125 healthy individuals (31.2%) did not do physical work regularly. In the patient group, 59 persons did physical exercise (14.8%) and 341 patients did not do physical exercise (85.2%). In the control group, 45 healthy individuals did physical exercise (11.2%) and 355 persons did not do physical exercise (88.8%).

As recorded in the study, 223 patients (55.8%) and 78 healthy individuals (19.5%) spent maximum day time in smoky & dusty areas whilst 177 patients (44.2%) and 322 healthy individuals (80.5%) did not spend maximum day time in smoky & dusty areas. There were 201 patients (50.2%) and 138 healthy individuals (34.5%) had family history of asthma whilst 199 patients (49.8%) and 262 healthy individuals (65.5%) had no family history of asthma. And 89 patients (2.2%) and 66 healthy individuals (16.5%) had family history of psychiatric disorders whilst 311 patients (77.8%) and 334 healthy individuals (83.5%) had no family history of psychiatric disorders.

2.2 Measuring instruments:

2.2.1 The SRQ-24:

The World Health Organization formally recommended the Self Reporting Questionnaire (SRQ-24) in its 1994 manual (WHO, 1994). The scoring for the scale was set to be one for a "Yes" response and a zero for "No" response. The Self Reporting Questionnaire (SRQ) that was used in this study has been developed by World Health Organization (WHO) as an instrument designed to screen for psychiatric disturbance, especially in the developing countries. The SRQ consists of 20 questions related to neurotic symptoms with simple yes/no responses. It may be used as a self administered or as an interviewer administered questionnaire. Additional 4 questions have been used with SRQ-24, to screen psychotic disorder (Harding et al. 1980). Its cut of point is 10. The SRQ is an instrument with proven

reliability and validity. The SRQ-24 had also been used in previous psychiatric morbidity researches in Bangladesh (Rahman et al., 2012; Nahar et al., 2013). The validated Bangla version of SRQ-24 was used in this study as a measure of mental health of Asthma.

2.2.2 The SF-36:

The SF-36 has eight scales that measure eight domains of HRQoL (Ware, Snow, kosinski, & Gandek, 1993). The domains are physical functioning (PF, 10 items), role limitations due to physical health problems (RP, four items), role limitations due to emotional problems (RE, three items), bodily pain (BP, two items), vitality, energy fatigue (VEF, four items), social functioning (SF, two items), general health perceptions (GHP, five items) and general mental health (GMH, five items). Eight health domains are further summarized into two; physical component summary (PCS) and mental component summary (MCS). The PF, RP and BP scales strongly correlate with PCS, while the GMH, RE and SF scales strongly correlate with MCS the GHP and VEF scales moderately correlate with physical and mental components. The scoring of the items varied from dichotomous scales (yes/no) to six point ordinal scales. The total score is calculated from the mean of the eight sub-scales ranging from 0 to 100 where a high score indicates better health. Besides, mean of four mental health sub-scales (RE, VEF, GMH and SF) and four physical health sub-scales (RP, BP, FP and GHP) score was calculated to capture mental component summary score (MCS) and physical component summary score (PCS), respectively. Bangla version of SF-36 was used to assess HRQoL. US English SF-36 was translated into Bengali after established cross-cultural adaptation procedures. Cronbach's α was higher than 0.78 and the test-retest reliability was high ($r>0.82$) for all scales. This questionnaire has been validated for both clinical samples (Firoz et al., 2012) and general population (Ahmed, Rana, Chowdhury, & Bhuiya, 2002). The importance of measuring individuals' experiences of their health-related quality of life by making use of the SF-36 questionnaire is wide-ranging. Firstly, specific problems, per health-related quality of life indicator, can be identified and, secondly, based on these findings, interventions can then be done in order to improve individuals' quality of life. Thirdly, the results of the SF-36 questionnaire allows one to understand why people act as they do based on their perceived experiences of their health-related quality of life, fourthly, it is a tool to maneuver people in improving their quality of

life and, fifthly, it can take steps as an assessment of whether or not interventions were successful.

2.2.2.1 The SF-36 Do's and Don'ts:

Specific Do's and Don'ts for questionnaire administrating are given below.

Do's:

1) Do have the respondents fill out the questionnaire before they fill out any other health data forms and before they see their physicians.
2) Do be warm, friendly, and helpful.
3) Do request and encourage respondents to fill out the questionnaire.
4) Do request and encourage respondents to fill out the questionnaire.
5) Do read and repeat a question verbatim for the respondent.
6) Do tell respondents to answer a question based on what they think the question means.
7) Do thank respondents if they will be asked to fill out the same questionnaire again at other clinic visit.

Don'ts:

1) Do not discuss respondents' health, health data, or emotions with them before they fill out the questionnaire.
2) Don not force or command respondents to fill out the questionnaire.
3) Do not accept an incomplete without first encouraging the respondent to fill out unanswered question.
4) Do not interpret or explain a question.
5) Do not force or command respondents to fill out a particular question.
6) Do not allow spouses or family members to help the respondents fill out the questionnaire.

2.2.3 The SCID-CV: Structured Clinical Interview for DSM-IV Axis-I Disorders (SCID-I): Clinician Version

The Structured Clinical Interview for DSM-IV Axis I Disorders: Clinician Version (SCID-CV) assisted in making standardized and accurate diagnoses that incorporate DSM-IV by a systematic probe for symptoms that might otherwise be overlooked. This interview incorporated the benefits of structured interviewing and made more accurate and reliable diagnoses without resorting to the lengthier and more complex process used principally in research studies. Especially it is designed to use in clinical settings, the SCID-CV covers those DSM-IV diagnoses most commonly seen by clinicians and includes the full diagnostic criteria for these disorders with corresponding interview questions. The SCID-CV is divided into six self-contained modules covering (First, Spitzer, Gibbon, & Williams, 1997b):

Module A: Mood Episodes:

Module A describes mood episodes that begin with Major Depressive Episode, Manic Episode and Hypomanic Episode. Further, it includes Dysthymic Disorder, Mood Disorder due to a General Medical Condition and Substance-Induced Mood Disorder.

Module B: Psychotic Symptoms

Module B describes Psychotic Symptoms that includes Delusions, Hallucinations, Disorganized Speech and Behaviour, Catatonic Behaviour and Negative Symptoms.

Module C: Psychotic Disorders

Module C elaborates Psychotic Disorders including Schizophrenia – paranoid type, catatonic type, disorganized type, undifferentiated type and residual type, Schizophreniform Disorder, Schizoaffective Disorder, Delusional Disorder, Brief Psychotic Disorder, Psychotic Disorder due to a General Medical Condition, Substance-Induced Psychotic Disorder and Psychotic Disorder not Otherwise Specified.

Module D: Mood Disorders

Module D describes Mood Disorders including Bipolar I Disorder, Bipolar II Disorder, Bipolar Disorder not Otherwise Specified, Major Depressive Disorder and Depressive Disorder not Otherwise Specified.

Module E: Substance Use Disorders

Module E elaborates Substance Use Disorders including Alcohol Dependence, Alcohol Abuse
Amphetamine Dependence, Amphetamine Abuse, Cannabis Dependence, Cannabis Abuse, Cocaine Dependence, Cocaine Abuse, Hallucinogen Dependence, Hallucinogen Abuse, Opioid Dependence, Opioid Abuse, Phencyclidine Dependence, Phencyclidine Abuse, Sedative / Hypnotic / Anxiolytic Dependence, Sedative / Hypnotic / Anxiolytic Abuse, Other or Unknown Substance Dependence, Other or Unknown Substance Abuse.

Module F: Anxiety and Other Disorders

Module F describes Anxiety and Other Disorders including Panic Disorder with Agoraphobia, Panic Disorder without Agoraphobia, Obsessive-Compulsive Disorder, Post-traumatic Stress Disorder, Anxiety Disorder due to a General Medical Condition, Substance-Induced Anxiety Disorder, Anxiety Disorder not Otherwise Specified and Adjustment Disorder.

Also included in Module F are disorders without diagnostic criteria. These are Agoraphobia without History of Panic Disorder, Social Phobia, Specific Phobia, Generalized Anxiety Disorder Summarization Disorder, Undifferentiated Somatoform Disorder, Hypochondriasis, Body Dysmorphic Disorder, Anorexia Nervosa and Bulimia Nervosa.

The SCID-CV may be administered to either psychiatric or general medical patients. It is most appropriate for adults (18 years and over), but with slight modification, may be used with adolescents. The SCID-CV uses two separate books: a reusable

Administration Booklet that contains the interview questions and the abridged DSM-IV diagnostic criteria on which the clinician records diagnostic decisions. The ratings on the SCID-CV give judgments about the diagnostic criteria and not necessarily the patient's answers to the questions. The clinician is required to make a clinical judgment as to whether a diagnostic criterion is met. The SCID-CV is ordinarily administered in a single setting and takes 45 to 90 minutes.

2.2.3.1 SCID Do's and Don'ts:

1. Do use the Overview to obtain the patient's perception of the problem and treatment history.
2. Don't ask in the Overview for details about specific symptoms that are covered in later sections of the SCID-CV.
3. Do get an overview of the current illness at the beginning of the interview to understand the context in which it developed.
4. Don't leave the overview section until you have enough information to formulate a list of diagnostic possibilities.
5. Do stick to the initial questions, as they are written, except for minor modifications to consider what the patient has already said, or to request elaboration or clarification.
6. Don't make up your own initial questions because you feel that you have a better way of getting the same information. Your minor improvement may have a major unwanted effect on the meaning of the question. A lot of care has gone into the exact phrasing of the questions, and they work in nearly all cases.
7. Do ask additional clarifying questions to elicit details in the patient's own words, such as "Can you tell me about that?" or "Do you mean that...?
8. Don't use the interview as a checklist or true\false test.
9. Do take care to ensure that the item you are rating on the Scoresheet corresponds to the question you are asking in the Administration Booklet.
10. Don't skip to an item in the Administration Booklet without also skipping to the corresponding item in the Scoresheet.
11. Do use your judgment about a symptom, considering all of the information available, and confront the patient (gently, of course) about responses that conflict with other information.

12. Don't automatically accept a patient's response if it contradicts other information or you believe it is not valid.

13. Do make sure that the patient understands what you are asking. It may be necessary to repeat or rephrase questions or ask patient if they understand you. In some cases it may be valuable to describe the entire syndrome you are asking about (e.g., a Manic Episode).

14. Don't use words or jargon that the patient does not understand.

15. Do make sure that you and the patient are focusing on the same (and appropriate) time period for each question.

16. Don't assume that symptoms that a patient is describing cluster together in time unless you have clarified the time period. For example, the patient may be talking about a symptom that occurred a year ago and another symptom that appeared last week, when you want him or her to focus on symptoms that occurred jointly during a 2-week period of possible Major Depressive Episode.

17. Do focus on obtaining the necessary information to judge all of the particulars of the criterion under consideration. As noted earlier, this may require asking additional questions.

19. Don't focus only on getting an answer to the SCID-CV question.

20. Do give the patient the benefit of the doubt about a questionable psychotic symptom by rating a"-."

21. Don't call a subculturally accepted religious belief or an overvalued idea a delusion. Don't confuse ruminations or obsessions with auditory hallucinations.

22. Do make sure that each symptom noted as present is diagnostically significant. For example, if a patient says that he has always had trouble sleeping, than that symptom should not be noted as present in the portion of the SCID-CV dealing with the diagnosis of a Major Depressive Episode (unless the sleep problem was worse during the period under review). This is particularly important when an episodic condition (such as a Major Depressive Episode) is superimposed on a chronic condition (such as Dysthymic Disorder).

23. Do pay attention to double negative, especially in the exclusion criteria. For example, the phrase "is Not better accounted for by Bereavement" means that a rating of "-" is made if it is better accounted for by Bereavement and a "+" if it is Not.

24. Don't code "-" for an exclusion criterion when what you really mean is that the excluded condition is NOT present. For example, if the criterion reads "NOT due to

the direct physiological effects of a general medical condition or substance. (Think: "Yes, we have no bananas" → '+,' we have no etiological medical condition or substance.")

25. Do proceed sequentially through the SCID-CV unless an instruction tells you to skip to another section.

26. Don't skip a section without completing it because you feel certain that it does not apply (e. g., don't skip the psychotic symptoms section because you have no indication from the Overview that the patient has ever had any psychotic symptoms).

2.3 Data collection techniques:

All patients were subjected to a two-stage screening process.

2.3.1 First-stage screening process:

In the procedure, the self-reporting questionnaire-24 (SRQ-24), SF-36 and the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) were used (First, Spitzer, Gibbon, & Williams, 1997a). Screening procedure was carried out by turns in consecutive days till the quota was reached in each division.

2.3.2 Second-stage screening process:

After first-stage screening process, all the positive respondent of SRQ-24 and one fourth of negative respondent of SRQ-24 were included for the second stage for in-depth clinical examination using the clinician version of the SCID-I.

The SCID-I (SCID-CV) is a semi-structured interview for making the major DSM-IV Axis I diagnoses (APA, 1994).

2.3.3 Control group (healthy individual) screening process:

In the Procedure, the SF-36 (Medical Outcomes Study 36-Item Short-Form Health Survey) was used. Screening procedure of normal control group was carried out by turns in consecutive days till the quota was reached in each division.

2.4 Procedure:

After an official approval for space and obtaining co-operation for every setting, the data collection was carried out. Patients were requested to participate in the study through a consent form after being diagnosed by the doctor as having asthma.

The study was conducted into two phases in all hospitals and clinics. Firstly, participants were selected through the referral of doctors as the sample of the present study. Then cases were selected when they agreed to spent several minutes for interview. After the referral, the interviewer took consent of the participants. While taking the consent, interviewer explained the purpose of the study to the participants. Moreover, it was clearly described to all how they could cooperate with conducting the study. It was clearly described to all participants that the confidentiality of all information provided for the current research will be maintained. Firstly, the interviewer administered SRQ and SF-36 questionnaire to the participants. The respondent who scored 10 and above was considered as SRQ positive and who scored 9 and below was considered as SRQ negatives. After the first stage screening process, every positive SRQ scorer and every forth of negative SRQ scorer were referred to the researcher for semi-structured interview by SCID-I (SCID-CV). Demographic data were collected according to a semi-structured demographic questionnaire. Each client was asked to provide information about the duration of their diseases also.

At the beginning of the interview, participants of the study were selected according to the inclusion criteria. The asthma patients were not included for the study, if they met any exclusion criteria. At the beginning of the semi-structured interview, the purpose of the study was again described by the researcher and consent was obtained to administer SCID-I. During the interview, rapport was established for a working relationship. The verbal and non-verbal micro skills were also applied to continue each interview successfully. The total assessment for each participant was completed within 35-70 minutes.

In this study, healthy individuals for control group were interviewed by the assistant, where every interview assistant was properly trained by the researcher. The assistant was selected from the nearby areas of where the patient group data was collected

from. They also maintained ethical issues of the research. Demographic data and SF-36 questionnaire were administered for healthy individual group (control group). The sample size was eight hundred. Among those, four hundred were patient group and remaining four hundred were healthy individuals for control group. In every group, two hundred female and two hundred male took part in the interview. The study was conducted in every division in Bangladesh. Eight districts were selected for data collection among availability for patient group. Healthy individuals were selected from nearby areas of the patient group.

Data were collected from healthy individuals by assistants. Total ten assistants were selected for this study. Among them two were also working with the researcher for collecting data for patient group. An assistant clinical psychologist, a trainee educational psychologist, a trainee psychotherapist and a college lecturer of the psychology department were among research assistants. One of them had basic counseling training on cognitive behavior therapy. Three were graduate students of renowned public universities. One was post-graduate student of a renowned public university. One assistant completed graduation, who had excellent communication skill to contact the people.

2.5 Study design:

This is a cross-sectional study, descriptive in nature. Participants were selected as the sample of the present study through the referral of doctors. A group of healthy individuals (age and sex matched) was used as control group for comparison with the patient group for HRQoL evaluation. After the diagnosis of asthma disease by the doctors and respiratory medicine specialist, interviewer included the patient as a participants according to inclusion criteria. The process of selecting participants is given in figure 1. In the first stage, the sample of the study was chosen using purposive sampling technique. Respondents who scored 10 and above were SRQ positive respondents and who scored 9 and below were SRQ negative respondents. Then, the structured clinical interview for diagnosis clinician version (SCID-CV) was applied as a diagnostic tool on every screen positive and on every fourth screen negative respondents. The interviewer was unaware of the screening score of each

person. The sub-sample was chosen using disproportionate stratified random sampling.

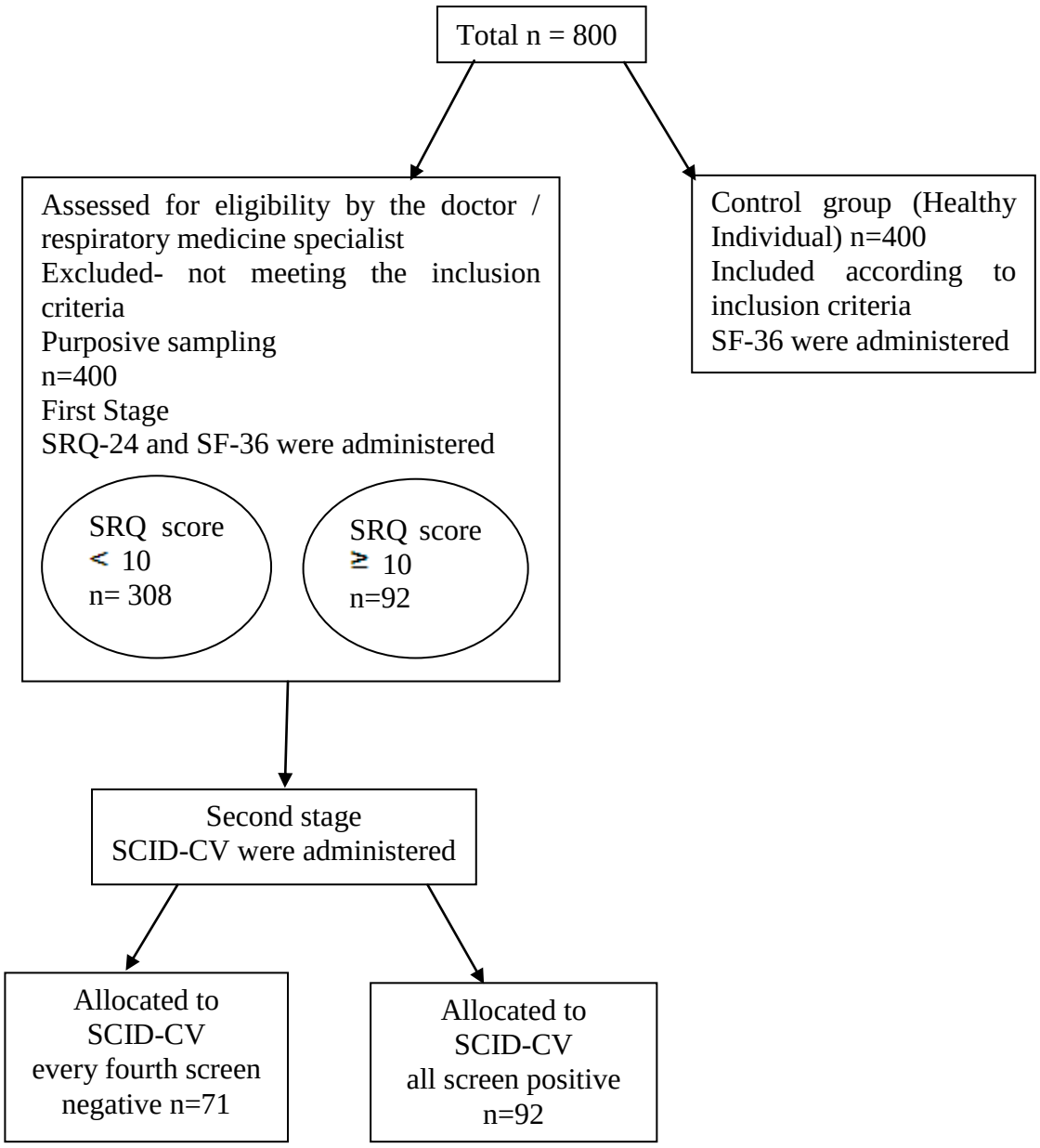


Figure 1: The process of selecting participants

This is a two stage design to find psychiatric morbidity of asthma patients in multiple medical settings.

The Cases as determined in stage one was confirmed or disconfirmed by the interview in stage two. The confirmed case was considered as true positive. Moreover, the inclusion of every fourth ‘screen negative' respondents made it possible to determine how often the screening procedure generates false or negative.

To obtain a population estimate of the prevalence of psychiatric morbidity, the counts for psychiatric disorders from the second stage were weighted to reconstitute the original sample proportion, using the mathematical formula below. (Islam, Ali, Ferroni, Underwood, & Alam, 2003; Vazquez-Barquero, Diez-Manrique, Pena, Quintanal, & Lopez, 1986):

$$p = \frac{\sum I_i \frac{n_i}{m_i}}{N}$$

P = Weighted proportion of number with psychiatric disorders

$\mathbf{I}_i$ = Number of true cases of psychiatric disorders detected in the second stage in each of the ten strata of SRQ score.

n_i = Number of screened persons in each of strata

m_i = Number of persons sampled in the second stage in each stratum.

N = Total number of screened persons in the first stage.

A number of socio-demographic factors were examined to see whether they were associated with psychiatric morbidity. Chi-square test (χ^2) was used to evaluate the differences between and within the groups. T-test was performed to compare groups mean values. Linear regression was used to investigate the effect of independent variables. Later on the data was processed and analyzed statistically with the SPSS statistical software, version 20.0, for windows (IBM. Corp, Armonk, NY).

2.6 Ethical consideration:

In the present study, the following measures were taken to maintain maximum wellbeing of the research participants.

First, permissions were taken mentioning the research purposes from all the authority of every institution and hospital.

Second, informed consent was taken from the individual participants. They were informed of voluntary participation. They were also allowed to quit any time during the interview.

Third, each participant was assured the confidentiality of data that the information would be used only for research purpose and participant's identity would not be mentioned anywhere.

Finally, appropriate referral was done if participants had any type of psychiatric disorder.

RESULTS

Analysis of the results obtained from the investigation was presented in this chapter. Data analysis was done using the Statistical Package for Social Studies (SPSS software version 20).

3.1 Major Analyses:

In order to investigate common mental disorders among asthma adult outpatients, chi-square test (χ^2) was used to determine the significance of difference between the groups with and without psychiatric disorder. The prevalence figure had weighted using mathematical formula. T test were used for continuous variables to compare groups mean values. P-values less than 0.05 were considered to indicate statistical differences.

Firstly, the overall percentage of psychiatric disorder was calculated using mathematical formula of weighted prevalence. The result is shown in table 4.

Table 5: Disproportionate of sampling and weighted prevalence percentage (%) of psychiatric morbidity

Stratum	Study population according to SRQ-24 score, (n_i)	Respondents interviewed (SCID-CV) as sample, (m_i)	Case with Psychiatric disorders, ($\mathbf{I}_i$)	Weighted number of cases with psychiatric disorders, $\mathbf{I}_i \ \ n_i / m_i$ (%)	Percentage of total weighted prevalence
S1-SRQ score $<$ 10	308	71	12	52.05 (16.90%)	33.76%
SRQ score $\geq$ 10	92	92	83	83 (90.22%)	
Total	400	163	95	135.05	

Note: The figure in parentheses indicates percentages.

Table 5 clearly showed that the psychiatric morbidity of asthma adult patients was 33.76%. This was the overall weighted prevalence of psychiatric disorders in this study.

Table 6: Distribution of the psychiatric diagnoses (the Structured Clinical Interview for DSM-IV Axis I Disorders: Clinician Version) (SCID-CV) or common mental health problems among asthma patients

Name of disorders	Weighted Prevalence percentage of psychiatric disorder among study population, n=400		Percentage of SCID-CV respondents n=163		Percentage of positive cases, n=95	
	No.	%	No.	%	No.	%
Dysthymic Disorder	40	13.32	40	24.5	40	42.1
MDD	26	8.16	26	16.0	26	27.4
Depressive Disorder NOS	2	0.50	2	1.2	2	2.1
GAD	7	4.24	7	4.3	7	7.4
OCD	2	1.33	2	1.2	2	2.1
Panic Disorder	13	4.91	13	8.0	13	13.7
Social Phobia	3	0.75	3	1.8	3	3.2
Somatoform Disorder	1	0.25	1	0.6	1	1.1
Anxiety Disorder NOS	1	0.25	1	0.6	1	1.1

Note: The figure shows percentages of psychiatric disorders.

Table 6 showed weighted prevalence percentages of psychiatric disorders among study population (N = 400). The result also showed that dysthymic disorder, major depressive disorder (MDD), panic disorder and generalized anxiety disorder (GAD) were the most common forms of psychiatric morbidity among asthma patients. Dysthymic disorder (13.32%), major depressive disorders (8.16%), panic disorder (4.91%) and generalized anxiety disorder (4.24%) showed higher prevalence rate. Obsessive compulsive disorder (1.33%), social phobia (0.75%), somatoform disorder (0.25%), depressive disorder nos (0.50%) and anxiety disorder nos (0.25%) showed lower prevalence rate.

The total number of the respondents of SCID-I (SCID-CV) was 163. The result also showed that the total number of positive cases was 95. Table 6 also showed the percentages among SCID-CV respondents. Here, dysthymic disorder rate was 24.5%, major depressive disorder rate was 16.0%, panic disorder rate was 8.0%, generalized anxiety disorder rate was 4.3%, social phobia rate was 1.8%, obsessive compulsive disorder rate was 1.2%, depressive disorder nos rate was 1.2%, somatoform disorder rate was 0.6% and anxiety disorder nos rate was 0.6%. As the result got positive cases, 40 respondents had dysthymic disorder, 26 respondents had major depressive disorder, 13 respondents had panic disorder, 2 respondents had depressive disorder nos, 7 respondents had generalized anxiety disorder, 3 respondents had social phobia, 2 respondents had obsessive compulsive disorder, 1 respondent had somatoform disorder and 1 had anxiety disorder nos. As a result, percentages among positive cases showed that dysthymic disorder rate was 42.1%, major depressive disorder rate was 27.4%, panic disorder rate was 13.7%, generalized anxiety disorder rate was 7.4%, obsessive compulsive disorder rate was 2.1%, social phobia rate was 3.2%, depressive disorder nos rate was 2.1%, somatoform disorder rate was 1.1% and anxiety disorder nos rate was 1.1%. Graphical presentation of psychiatric disorder of SCID-I is presented in figure 2.

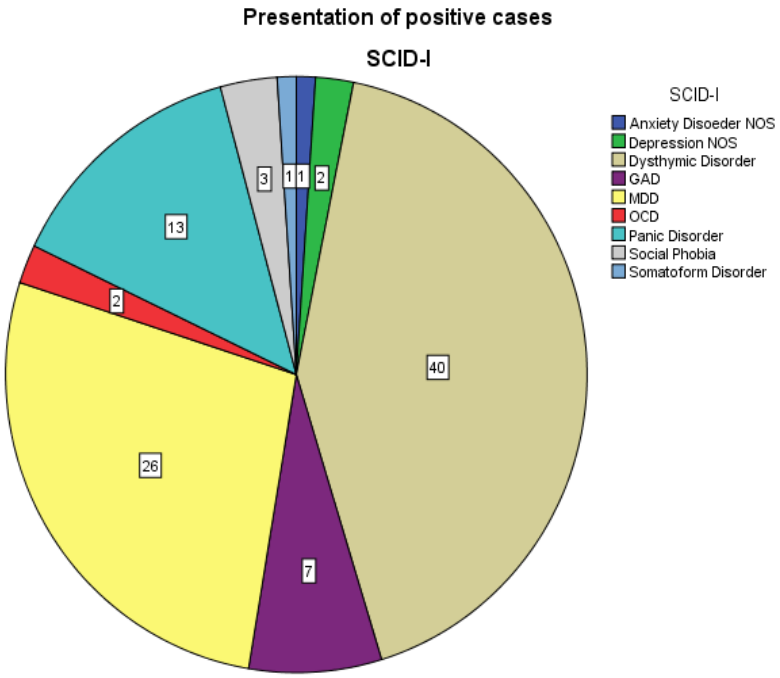


Figure 2: Distribution of the Psychiatric Disorder according to positive cases (number) (SCID-CV)

Table 7: Percentage of psychiatric disorder according to Structured Clinical Interview for DSM-IV Axis I Disorders: Clinician Version (SCID-CV) or common mental health problems among asthma patients and their demographic characteristic

Characteristics		Psychiatric disorder positive n (%) D+	Psychiatric disorder negative n (%) D-	P-value	Second stage (n)
Gender	Female	53 (55.8%)	33 (48.5%)	.360	Total n = 163
	Male	42 (44.2%)	35 (51.5%)		
Educational Qualification	None	17 (17.9%)	4 (5.9%)	.013*	
	Able to write and read	22 (23.2%)	10 (14.7%)		
	Class 1 to 5	13 (13.7%)	6 (8.8%)		
	Class 6 to 9	9 (9.5%)	9 (13.2%)		
	S.S.C/Equivalent	17 (17.9%)	11 (16.2%)		
	H.S.C/Equivalent	6 (6.3%)	13 (19.1%)		
	Graduation / Honours / Equivalent	10 (10.5%)	10 (14.7%)		
	Post Graduates and above	1 (1.1%)	5 (7.4%)		
Division	Sylhet	14 (14.7%)	8 (11.8%)	.992	
	Chittagong	12 (12.6%)	9 (13.2%)		
	Rangpur	12 (12.6%)	8 (11.8%)		
	Rajshahi	11 (11.6%)	9 (13.2%)		
	Barisal	9 (9.5%)	9 (13.2%)		
	Khulna	15 (15.8%)	9 (13.2%)		
	Mymensingh	12 (12.6%)	8 (11.8%)		
	Dhaka	10 (10.5%)	8 (11.8%)		

Table 7: Continued

Occupation	Government Job	4 (4.2%)	8 (11.8%)	.026*	
	Non-Government Job	10 (10.5%)	9 (13.2%)		
	Small Business	2 (2.1%)	1 (1.5%)		
	Big Business	2 (2.1%)	10 (14.7%)		
	Teacher	2 (2.1%)	2 (2.9%)		
	Farmer	13 (13.7%)	4 (5.9%)		
	Day Labour / field worker	3 (3.2%)	2 (2.9%)		
	Rickshaw puller/industrial worker/Transport worker / Fisher man / Black Smith / Potter / Weaver	6 (6.3%)	1 (1.5%)		
	Student	3 (3.2%)	6 (8.8%)		
	House wife	41 (43.2%)	23 (33.8%)		
	Garment's worker	2 (2.1%)	1 (1.5%)		
	Others	7 (7.4%)	1 (1.5%)		
Monthly income	Higher Class (25001-above)	23 (24.2%)	30 (44.1%)	.003**	
	Middle Class (10001-25000)	29 (30.5%)	23 (33.8%)		
	Lower Class (up to 10000)	43 (45.3%)	15 (22.1%)		
Marital Status	Married	74 (77.9%)	50 (73.5%)	.246	
	Single	7 (7.4%)	11 (16.2%)		
	Divorced/Widow/Widower	1 (1.1%)	1 (1.5%)		
	Forsaken/abandoned	13 (13.7%)	6 (8.8%)		
	Total	95 (100.0)	68 (100.0%)		
Religion	Muslim	91 (95.8%)	61 (89.7%)	.127	
	Hindu	4 (4.2%)	7 (10.3%)		
	Total	95 (100.0%)	68 (100.0%)		

Table 7: Continued

Family Structure	Extended Family	34 (35.8%)	28 (41.2%)	.516	
	Nuclear Family	61 (64.2%)	40 (58.8%)		
Personal Habits					
Current Smoker	Yes	14 (14.7%)	8 (11.8%)	.584	
	No	81 (85.3%)	60 (88.2%)		
Excessive intake non alcoholic/carbonated drinks regularly	Yes	13 (13.7%)	11 (16.2%)	.658	
	No	82 (86.3%)	57 (83.8%)		
Regular Physical work	Yes	66 (69.5%)	51 (75.0%)	.440	
	No	29 (30.5%)	17 (25.0%)		
Physical exercise	Yes	14 (14.7%)	15 (22.1%)	.228	
	No	81 (85.3%)	53 (77.9%)		
Spending maximum day time in smoky & dusty area	Yes	55 (57.9%)	43 (63.2%)	.492	
	No	40 (42.1%)	25 (36.8%)		
Duration of Asthma Disease	below 6 months	4 (4.2%)	8 (11.8%)	.141	
	below 1 year	5 (5.3%)	2 (2.9%)		
	below 3 year	14 (14.7%)	15 (22.1%)		
	3 year and above	72 (75.8%)	43 (63.2%)		
Family History of Asthma	Yes	49 (51.6%)	31 (45.6%)	.451	
	No	46 (48.4%)	37 (54.4%)		
Family History of Psychiatric Disorder	Yes	28 (29.5%)	15 (22.1%)	.289	
	No	67 (70.5%)	53 (77.9%)		

Table 7: Continued

Living Area	City	35 (36.8%)	26 (38.2%)	.009**	
	Town	1 (1.1%)	8 (11.8%)		
	Village	59 (62.1%)	34 (50.0%)		
	Total	95 (100.0%)	68 (100.0%)		
Age (y)		Mean (SD) 42.55 ± 13.699	Mean (SD) 42.69 ± 14.457	.618	

p** value<0.01 and * p value<0.05.

Table 7 showed in educational qualification and occupation, there was statistically significant difference between asthma patients with and without psychiatric disorder ($p<0.05$). In monthly income and living area, there was highly significant difference between asthma patients with and without psychiatric disorder ($p<0.01$). Female patients found higher percentage rate (55.8%) to have psychiatric morbidity than male (44.2%). Psychiatric morbidity was found higher among patients who were able to write and read (23.2%), S.S.C/Equivalent (17.9%) and none (17.9%). In patient group, higher percentage of psychiatric disorder was found in Sylhet (14.7%) and Khulna (15.8%) than in other divisions. The percentages of psychiatric disorders were found higher among housewives (43.2%), farmers (13.7%) and Non-government job holder (10.5%) asthma patients than all others in the same group.

Mental disorders were found higher (45.3%) among lower class of society whose monthly earning were up to 10,000 taka than those who earned 25,001-1,00000 taka (30.5%) and 1,00001- above (24.2%). According to monthly income, there was highly significant difference among patients with and without psychiatric disorder ($p<0.01$). Higher percentage of psychiatric morbidity among married patients (77.9%) was found than single (7.4%) patients. Among forsaken or abandoned asthma patients, 13.7% were found to have psychiatric disorder. Asthma patients who lived in a nuclear family (64.2%) had high percentage of psychiatric disorder than who lived in an extended family (35.8%). In religious status, 95.8% Muslim asthma patients suffered from psychiatric disorder than Hindu asthma patients who had a diagnosis of

psychiatric disorder in this study. Interestingly, current non-smoker asthma patients were found to have high rate (85.3%) of psychiatric disorder than the smoker (13.7%). Patients who practiced regular physical exercise (85.3%) were found lower percentage than who did not practice regularly (14.7%). Asthma patients who excessive intake non-alcoholic / carbonated drinks regularly were found lower percentage (13.7%) than who did not drink (86.3%). Asthma patients who spent maximum day time in smoky and dusty areas were found 57.9% and who did not do so were found 42.1% of psychiatric morbidity rate. There was no significant difference in the duration of the asthma diseases among participants with and without psychiatric disorder. Asthma patients who had been suffering from the disease for 3 years and above were found 44.2% to have mental disorder. Whereas below 3 years 14.7%, below 1 year 5.3% and below 6 months 4.2% morbidity rate were found in the study. It revealed that patients who had family history of asthma had 51.6% whereas who did not have so had 48.4% morbidity rate. The villagers' were found to have higher percentage rate (62.1%) of psychiatric disorder than who lived in cities (36.8%). The patients who lived in a town (smaller than city) had low percentage rate (1.1%) of psychiatric disorder. There was no significant difference in age among asthma patients with psychiatric disorder and without psychiatric disorder. Interestingly, patients who had family history of psychiatric disorder showed lower percentage (29.5 %) of psychiatric morbidity than who did not so (70.5%). There was no significant difference in family history of psychiatric disorder among asthma patients between two groups.

Table 8: Association between psychiatric disorder and health-related quality of life

Psychiatric disorder	**Quality of life**			
	n	Mean (SD)	Mean Difference	p-value*
Positive	95	36.12 (16.26)	-	
Negative	68	65.01 (20.96)	28.90	<0.001

*p-value for t-test

Table 9: Association between psychiatric disorder and health-related quality of life (Regression analysis)

Psychiatric disorder	Mean (SD)	Unadj. Regression coefficient β (SE)	p-value	*Adj. Regression coefficient β (SE)	p-value
Positive	36.12 (16.26)	Ref	-	Ref	
Negative	65.01 (20.96)	28.90 (2.92)	<0.001	24.38 (2.98)	<0.001

* Adjusted for educational qualification, occupation, monthly income, marital status, religion, physical exercise, duration of asthma disease and living area.

Table 9 displays the mean differences of quality of life between the patient with psychiatric disorder and the patient without psychiatric disorder. The patient with no psychiatric disorder had 28.90 unit significantly ($p<0.001$) higher quality of life score compared to their counterpart. However, the adjusted analysis showed a slightly lower but significant effect ($\beta=24.38$, $p<0.001$). Graphical presentation of the mean differences of HRQoL (SF-36) between the patients with psychiatric disorder and without psychiatric disorder is shown in figure 3.

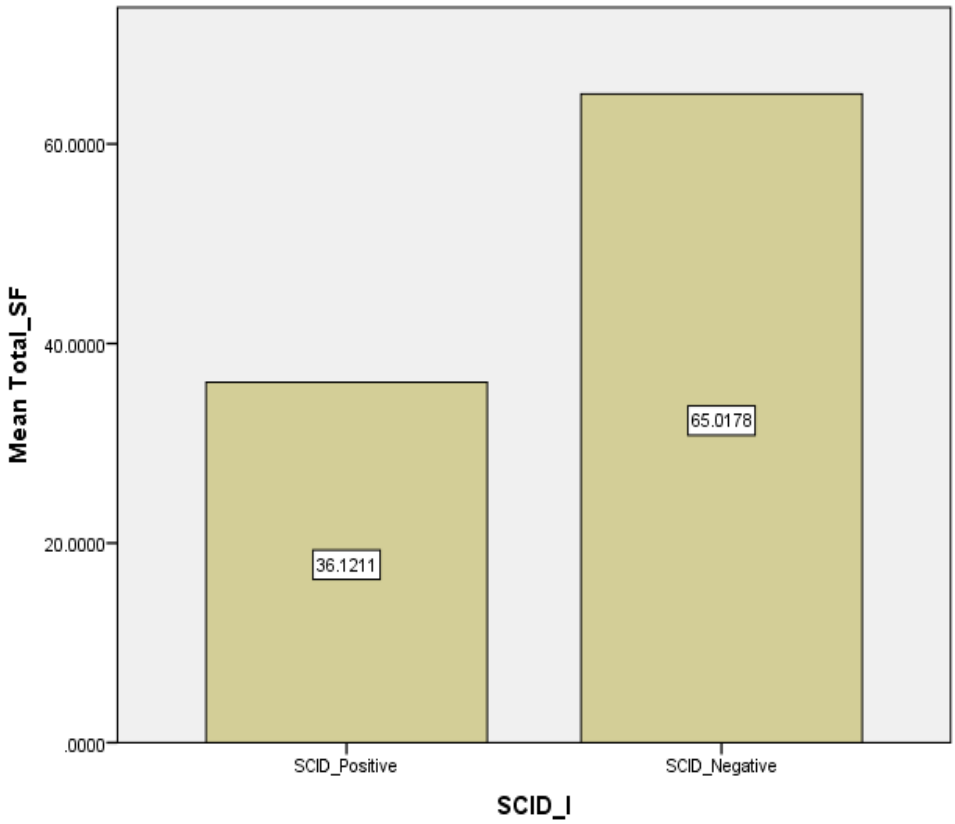


Figure 3: Graphical presentation of the mean differences of HRQoL (SF-36) between the patients with psychiatric disorder and without psychiatric disorder

Table 10: Difference of HRQoL between patients and control group

SF-36 domain	Patient Group, mean ± SD n=400	Healthy Individual (Control Group), mean ± SD n=400	t	p value
Physical functioning	62.37 ± 28.52	82.75 ± 22.01	-11.308	.000***
Role limitations due to physical health problems	50.84 ± 34.23	76.84 ± 28.14	-11.733	.000***
Bodily pain	69.02 ± 25.44	89.32 ± 13.36	-14.127	.000***
Social functioning	71.87 ± 26.35	84.60 ± 18.12	-7.961	.000***
General mental health	60.45 ± 29.36	84.40 ± 15.41	-14.444	.000***
Role limitations due to emotional problems	48.65 ± 45.50	87.04 ± 26.18	-14.622	.000***
Vitality, energy and fatigue	54.72 ± 24.28	77.21 ± 20.87	-14.047	.000***
General health perceptions	40.25 ± 25.56	73.36 ± 19.42	-20.627	.000***
Mental component summary	58.92 ± 24.97	83.31 ± 15.46	-16.604	.000***
Physical component summary	55.62 ± 23.85	80.57 ± 18.00	-16.693	.000***
Total SF-36	57.27 ± 23.22	81.94±15.55	-17.649	.000***

******* p<0.001, p** value<0.01 and * p value<0.05.

Standard deviation (SD), Physical functioning (PF), Role limitation due to physical health problems (RP), Bodily Pain (BP), Social functioning (SF), General mental health (GMH), Role limitation due to emotional problems (RE), Vitality energy and fatigue (VEF), General health perceptions (GHP), Mental component Summery (MCS), Physical component summery (PCS) and medical outcomes study 36-Item Short form health Survey (SF-36).

Table 10 showed the comparison between patient group and healthy individual control group. There was highly significant difference between two groups' quality of life ($p<0.001$). Patient group (Mean = 57.27, SD = 23.22) showed lower quality of life than healthy individual control group (Mean = 81.94, SD = 15.55). The table clearly showed that asthma patient group PF mean was 62.37 (SD = 28.52) whereas control PF mean was 82.75 (SD = 22.01). RP mean in patient group and control group were 50.84 (SD = 34.23) and 76.84 (SD = 28.14) consecutively. BP mean in patient group was 69.02 (SD = 25.44), but in the control group, mean was 89.32 (SD = 13.36). The SF domain of patients and control group mean were 71.87 (SD = 26.35) and 84.60 (SD = 18.12) consecutively. The GMH of patient and control group mean were 60.45 (SD = 29.36) and 84.40 (SD = 15.41) respectively. Three domains RE, VEF and GHP mean were 48.65 (SD =45.50), 54.72 (SD = 24.28) and 40.25 (SD = 25.56) in the patient group, where 87.04 (SD = 26.28), 77.21 (SD = 20.87) and 73.36 (SD = 19.42) in the control group. The patient group scored poorer in all domains of SF-36 and highly significant difference observed between two groups ($p<0.001$). The MCS mean was 58.92 (24.97) and 83.31 (15.46) in patient and control group respectively. The PCS mean was 55.62 (SD = 23.85) and 80.57 (SD = 18.00) in patient and control group respectively. The MCS and PCS of SF-36 were significantly lower in the asthma patient group than the control ($p<0.001$). Graphical presentation of the mean differences of HRQoL (SF-36) between patient and control group is shown in figure 4.

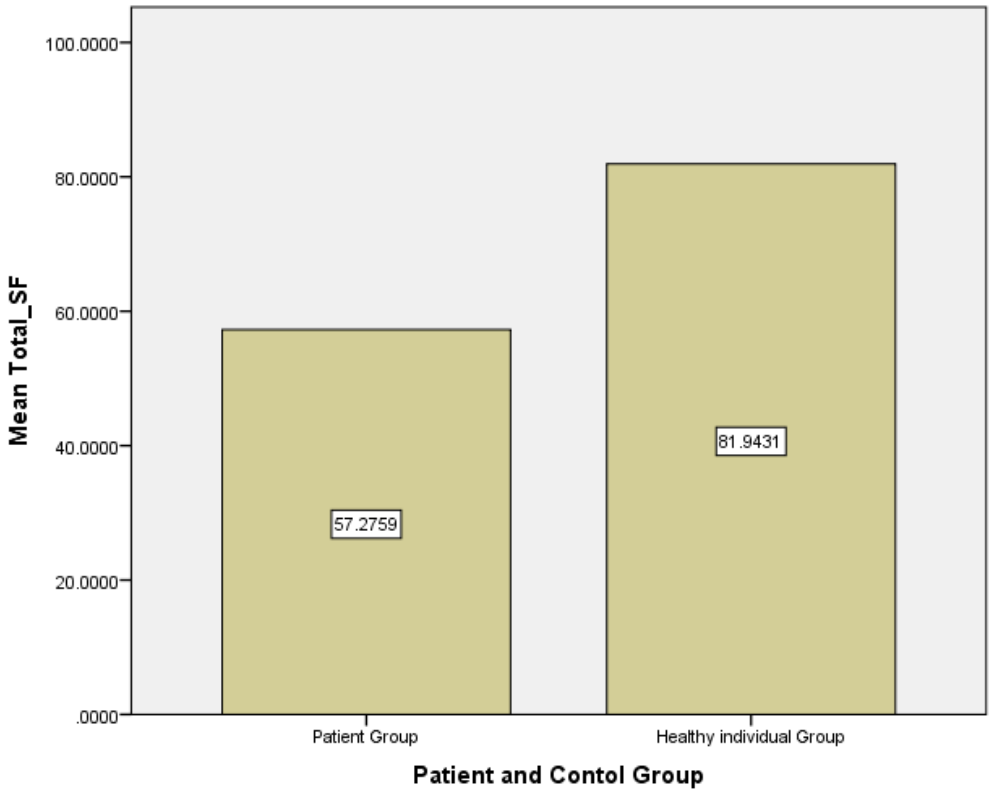


Figure 4: Graphical presentation of the mean differences of HRQoL (SF-36) between patient and control group

3.2 Others Analyses:

In order to investigate the health-related quality of life (HRQoL) of asthma patients and control group, t-test was used for continuous variables to compare groups mean values. P-values less than 0.05 were considered to indicate statistical difference.

Table 11: Difference of HRQoL between female patients and female control (Healthy Individual)

SF-36 domain	Female Patient group, mean ± SD n=200	Female Healthy Individual for control group, mean ± SD n=200	t	p value
Physical functioning	58.85± 28.42	79.20± 24.70	-7.640	.000***
Role limitations due to physical health problems	47.62± 33.65	71.81± 30.61	-7.518	.000***
Bodily pain	66.08± 24.79	88.05± 13.25	-11.048	.000***
Social functioning	69.35 ± 26.47	82.96± 19.12	-5.894	.000***
General mental health	58.17± 27.99	83.74± 16.49	-11.126	.000***
Role limitations due to emotional problems	45.65± 44.37	88.16± 24.07	-11.910	.000***
Vitality, energy and fatigue	52.50± 23.96	75.81± 23.82	-9.755	.000***
General health perceptions	37.90± 25.57	70.51± 20.45	-14.083	.000***
Mental component summary	56.42± 24.25	82.67±16.01	-12.771	.000***
Physical component summary	52.61± 23.84	77.39± 19.74	-11.317	.000***
Total SF-36	54.51± 22.86	80.03±16.60	-12.767	.000***

******* p<0.001, ****** p<0.01, * p value<0.05, Standard deviation (SD), Physical functioning (PF), Role limitation due to physical health problems (RP), Bodily Pain (BP), Social functioning (SF), General mental health (GMH), Role limitation due to emotional problems (RE), Vitality energy and fatigue (VEF), General health perceptions (GHP), Mental component Summery (MCS), Physical component summery (PCS) and medical outcomes study 36-Item Short form health Survey (SF-36).

Table 11 showed the comparison between female patient group and control group. There was highly significant difference between two groups' quality of life ($p<0.001$). Female patient group (Mean = 54.51, SD = 22.86) showed lower quality of life than female control group (Mean = 80.03, SD = 16.60). The table clearly showed that asthma patients group PF mean was 58.85 (SD = 28.42) where as control PF mean was 79.20 (SD = 24.70). RP mean in patient group and control group were 47.62 (SD = 33.65) and 71.81 (SD = 30.61) consecutively. Bodily pain mean in patient group was 66.02 (SD = 24.79), but in control group mean was 88.05 (SD = 13.25). The SF domain of female patients and control group mean were 69.35 (SD = 26.47) and 82.96 (SD =19.12) consecutively. The GMH of patients and control group mean were 58.17 (SD = 27.99) and 83.74 (SD = 16.49). Three domains RE, VEF and GHP mean were 45.65 (SD = 44.37), 52.50 (SD = 23.96) and 37.90 (SD = 25.57) in patient group, where 88.16 (SD = 24.07), 75.81 (SD = 23.82) and 70.51 (SD = 20.45) in control group. The female of patient group scored poorer in all domains of SF-36 and highly significant difference observed between two groups ($p<0.001$).

The MCS mean was 56.42 (SD = 24.25) and 82.67 (SD = 16.01) in female patient and control group respectively. The PCS mean was and 52.61 (SD = 23.84) and 77.39 (SD = 19.74) in female patient and control group respectively. The mental component summery (MCS) and physical component summery (PCS) of SF-36 mean were significantly lower in the female asthma patients group than the control ($p<0.001$).

Table 12: Difference of HRQoL between male patients and male control (healthy individual)

SF-36 domain	Male patient group, mean ± SD n=200	Male healthy individual for control group, mean ± SD n=200	t	p value
Physical functioning	65.90± 28.26	86.30± 18.33	-8.565	.000***
Role limitations due to physical health condition	54.06± 34.59	81.87± 24.48	-9.218	.000***
Bodily pain	71.96± 25.80	90.60± 13.39	-9.066	.000***
Social functioning	74.40± 26.05	86.25± 16.95	-5.391	.000***
General mental health	62.73± 30.56	85.06± 14.25	-9.364	.000***
Role limitations due to emotional problems	51.66± 46.51	85.91± 28.16	-8.908	.000***
Vitality, energy and fatigue	28.16± 24.46	78.61± 17.38	-10.214	.000***
General health perceptions	42.60± 25.40	76.21± 17.93	-15.288	.000***
Mental component summary	61.43± 25.49	83.96 ± 14.89	-10.790	.000***
Physical component summary	58.63± 23.53	83.74± 15.49	-12.604	.000***
Total SF-36	60.03± 23.30	83.85±14.21	-12.339	.000***

******* p<0.001, p** value<0.01, * p value<0.05, Standard deviation (SD), Physical functioning (PF), Role limitation due to physical health problems (RP), Bodily Pain (BP), Social functioning (SF), General mental health (GMH), Role limitation due to emotional problems (RE), Vitality energy and fatigue (VEF), General health perceptions (GHP), Mental component Summery (MCS), Physical component summery (PCS) and medical outcomes study 36-Item Short form health Survey (SF-36).

Table 12 showed the comparison between male patient group and control group. There were highly significant differences between two groups' quality of life ($p<0.001$). Male patient group (Mean = 60.03, SD = 23.30) showed lower quality of life than control group (Mean = 83.85, SD = 14.21). The table clearly showed that asthma male patient group PF mean was 65.90 (SD = 28.26) where as control PF mean was 86.30 (SD = 18.33). RP mean in male patient group and control group were 54.06 (SD = 34.59) and 81.87 (SD = 24.48) consecutively. BP mean in male patient group was 71.96 (SD = 25.80), but in control group mean was 90.60 (SD = 13.39). The SF domain of male patients and control group mean were 74.40 (SD = 26.05) and 86.25 (SD = 16.95) consecutively. The GMH of male patients and control group mean were 62.73 (SD = 30.56) and 85.06 (SD = 14.25).Three domains RE, VEF and GHP mean were 51.66 (SD = 46.51), 28.16 (SD = 24.46) and 42.60 (SD = 25.40) in male patient group, where 85.91 (SD = 28.16), 78.61 (SD = 17.38) and 76.21 (SD = 17.93) in the control group. The male participants of patient group scored poorer in all domains of SF-36 and highly significant difference observed between two groups ($p<0.001$). The MCS mean was 61.43 (SD = 25.49) and 83.96 (SD = 14.89) in male patient and control group respectively. The PCS mean was and 58.63 (SD = 23.53) and 83.74 (SD = 15.49) in male patient and control group respectively. The mental component summery (MCS) and physical component summery (PCS) of SF-36 were significantly lower in the male asthma patients group than the control ($p<0.001$).

Table 13: Difference of HRQoL between female patients and male patients

SF-36 domain	Female Patient Group, mean ± SD n=200	Male Patient Group, mean ± SD n=200	t	p value
Physical functioning	58.85± 28.42	65.90± 28.26	-2.486	.013*
Role limitations due to physical health problems	47.62±33.65	54.06±34.59	-1.886	.060
Bodily pain	66.08± 24.79	71.96± 25.80	-2.322	.021*
Social functioning	69.35± 26.47	74.40± 26.05	-1.923	.055
General mental health	58.17± 27.99	62.73± 30.56	-1.554	.121
Role limitations due to emotional problems	45.65± 44.37	51.66± 46.51	-1.324	.186
Vitality, energy and fatigue	52.50± 23.96	56.943± 24.46	-1.833	.068
General health perceptions	37.90± 25.57	42.60± 25.40	-1.844	.066
Mental component summary	56.42± 24.25	61.43± 25.49	-2.015	.045
Physical component summary	52.61± 23.84	58.63± 23.53	-2.385	.012*
Total SF-36	54.51± 22.86	60.03±23.30	-2.389	.017*

******* p<0.001, p** value<0.01, * p value<0.05, Standard deviation (SD), Physical functioning (PF), Role limitation due to physical health problems (RP), Bodily Pain (BP), Social functioning (SF), General mental health (GMH), Role limitation due to emotional problems (RE), Vitality energy and fatigue (VEF), General health perceptions (GHP), Mental component Summery (MCS), Physical component summery (PCS) and medical outcomes study 36-Item Short form health Survey (SF-36).

Table 13 showed the comparison between the female and male asthma patient group. There was statistically significant difference between two groups' quality of life ($p<0.05$). Female patient group (Mean = 54.51, SD = 22.86) showed lower quality of life than the male patient group (Mean = 60.03, SD = 23.30). The table clearly showed that female asthma patients group PF mean was 58.85 (SD = 28.42) whereas male asthma patient group PF was 65.90 (SD = 28.26). RP mean in the female patient group and the male patient group were 47.62 (SD = 33.65) and 54.06 (SD = 34.59) consecutively. BP mean in the female patient group was 66.08(SD = 24.79), but in the male patient group mean was 71.96 (SD = 25.80). The SF domain of the female patient and male patient group mean were 69.35 (SD = 26.47) and 74.40 (SD = 26.05) consecutively. The GMH of the female patients and the male group mean were 58.17 (SD = 27.99) and 62.73 (SD = 30.56).Three domains RE, VEF and GHP mean were 45.65 (SD =44.37), 52.50 (SD = 23.96) and 37.90 (SD = 25.57) in the female asthma patient group, where 51.66 (SD = 46.51), 56.94 (SD = 24.46) and 42.60 (SD = 25.40) in the male asthma patient group. The female asthma patient group scored poorer in two domains PF mean and BP of SF-36 and statistically significant difference observed between two groups ($p<0.05$). The MCS mean was 56.42 (SD =24.25) and 61.43 (SD = 25.49) in female patient and male patient group respectively. The PCS mean was and 52.61 (SD = 23.84) and 58.63 (SD = 23.53) in female and male patient group respectively. The physical component summery (PCS) of SF-36 was significantly low in the female asthma patients group than the male ($p<0.05$).

Table 14: Differences of HRQoL between the female and male healthy individual of control group

SF-36 domain	Female Healthy Individual for Control Group, mean ± SD n=200	Male Healthy Individual for Control Group, mean ± SD n=200	t	p value
Physical functioning	79.20± 24.70	86.30± 18.33	-3.264	.001**
Role limitations due to physical health problems	71.81± 30.61	81.87± 24.48	-3.630	.000***
Bodily pain	88.05± 13.25	90.60± 13.39	-1.914	.086
Social functioning	82.96± 19.12	86.25± 16.95	-1.819	.070
General mental health	83.74± 16.49	85.06± 14.25	-.856	.392
Role limitations due to emotional problems	88.16± 24.07	85.91± 28.16	.859	.391
Vitality, energy and fatigue	75.81± 23.82	78.61± 17.38	-1.346	.179
General health perceptions	70.51± 20.45	76.21± 17.93	-2.965	.003**
Mental component summary	82.67± 16.01	83.96± 14.89	-.835	.404
Physical component summary	77.39± 19.74	83.74± 15.49	-3.580	.000***
Total SF-36	80.03± 16.60	83.85±14.21	-2.473	.014*

******* p<0.001, p** value<0.01, * p value<0.05, Standard deviation (SD), Physical functioning (PF), Role limitation due to physical health problems (RP), Bodily Pain (BP), Social functioning (SF), General mental health (GMH), Role limitation due to emotional problems (RE), Vitality energy and fatigue (VEF), General health perceptions (GHP), Mental component Summery (MCS), Physical component summery (PCS) and medical outcomes study 36-Item Short form health Survey (SF-36).

Table 14 showed the comparison between the female and male healthy individual of control group. Interestingly, there was statistically significant difference between two groups' quality of life ($p<0.05$). Female healthy individual of control group (Mean = 80.03, SD = 16.60) showed lower quality of life than the male healthy individual control group (Mean = 83.85, SD =14.21). The table clearly showed that Female of control group PF mean was 79.20(SD = 24.70) whereas male PF mean was 86.30 (SD = 18.33). RP mean in the control group's female and male were 71.81 (SD = 30.61) and 81.87 (SD = 24.48) consecutively. BP mean in the female of control group was 88.05 (SD = 13.25), but in the male control group mean was 90.60 (SD = 13.39). The SF domain of the female and male control group mean were 82.96 (SD = 19.12) and 86.25 (SD = 16.95) consecutively. The GMH of the female and male control group mean were 83.74 (SD = 16.49) and 85.06 (SD = 14.25). Three domains RE, VEF and GHP mean were 88.16 (SD = 24.07), 75.81 (SD = 23.82) and 70.51 (SD = 20.45) in the female healthy individuals where 85.91 (SD = 28.16), 78.61 (SD = 17.38) and 76.21 (SD = 17.93) in male healthy individuals of control group. The female of control group scored poorer in PF, RP and GHP domains of SF-36 than male of control group. The domain RP mean of female healthy individual was significantly lower than male ($p<0.001$). The female of control group scored poorer in all domains of SF-36 other than RE. There was statistically significant difference observed in PF and GHP between two groups ($p<0.05$).

The MCS mean was 82.67 (SD = 16.01) and 83.96 (SD = 14.89) in female and male control group respectively. The PCS mean was and 77.39 (SD = 19.74) and 83.74 (SD = 15.49) in female and male control group respectively. The MCS showed no significant difference. The PCS of SF-36 was significantly lower in the female of control group than the male ($p<0.001$).

Table 15: The impact of psychiatric diagnosis on health-related quality of life (HRQoL)

SF-36 domain	Patients with psychiatric disorder, mean ± SD n=95	Patient without psychiatric disorder, mean ± SD n=68	t	p value
Physical functioning	43.37±25.10	67.20± 28.13	-5.680	.000***
Role limitations due to physical health problems	29.21± 27.14	57.53± 32.76	-5.383	.000***
Bodily pain	51.34± 25.31	75.55± 21.63	-6.391	.000***
Social functioning	54.78± 26.46	77.57± 24.95	-5.549	.000***
General mental health	37.78± 29.79	69.75± 21.02	-7.593	.000***
Role limitations due to emotional problems	19.26± 32.44	61.27± 44.83	-6.589	.000***
Vitality, energy and fatigue	33.232± 20.54	64.04± 20.44	-9.460	.000***
General health perceptions	19.95± 15.31	47.20± 24.98	-7.984	.000***
Mental component summary	36.26± 18.29	68.16± 21.20	-10.018	.000***
Physical component summary	35.97± 17.47	61.87± 22.84	-7.849	.000***
Total SF-36	36.12± 16.26	65.01± 20.96	-9.502	.000***

******* p<0.001, p** value<0.01, * p value<0.05, Standard deviation (SD), Physical functioning (PF), Role limitation due to physical health problems (RP), Bodily Pain (BP), Social functioning (SF), General mental health (GMH), Role limitation due to emotional problems (RE), Vitality energy and fatigue (VEF), General health perceptions (GHP), Mental component Summery (MCS), Physical component summery (PCS) and medical outcomes study 36-Item Short form health Survey (SF-36).

Table 15 showed the comparison among the asthma patient group with psychiatric disorder and without psychiatric disorder. There was highly significant difference between two groups' quality of life ($p<0.001$). Patient with psychiatric disorder group (Mean = 36.12, SD = 16.26) showed lower quality of life than without psychiatric disorder group (Mean = 65.01, SD = 20.96). The table clearly showed that patient with psychiatric disorder PF mean was 43.37 (SD = 25.10) whereas patient without psychiatric disorder PF mean was 67.20 (SD = 28.13). RP mean with and without psychiatric disorder in the patient group were 29.21 (SD = 27.14) and 57.53 (SD = 32.76) consecutively. BP mean in the patient group with psychiatric disorder was 51.34 (SD = 25.31), but in the patient group without psychiatric disorder mean was 75.55 (SD = 21.63). The SF domain of the patient group with and without psychiatric disorder were 54.78 (SD = 26.46) and 77.57 (SD = 24.95) consecutively. The GMH of the patient group with and without psychiatric disorder mean were 37.78 (SD = 29.79) and 69.75 (SD = 21.02). Three domains RE, VEF and GHP mean were 19.26 (SD = 32.44), 33.23 (SD = 20.54) and 19.95 (SD = 15.31) of the patient group with psychiatric disorder, where 61.27 (SD = 44.83), 64.04 (SD = 20.44) and 47.20 (SD = 24.98) of the patient group without psychiatric disorder. The patient with psychiatric disorder group scored poorer in all domains of SF-36 and highly significant difference observed between two groups ($p<0.001$). The MCS mean of two groups were 36.26 (18.29) and 68.16 (21.20). Patient with psychiatric disorder scored very poor than without. The PCS mean of two groups were 35.97 (17.47) and 61.87 (22.84). The MCS and PCS of SF-36 were significantly lower in the asthma patient group with psychiatric disorder than without psychiatric disorder ($p<0.001$).

Table 16: According to gender association between psychiatric disorder status and health-related quality of life

Gender (With Psychiatric Disorder)	Health-Related Quality of Life (HRQoL)			
	n	Mean (SD)	t	p-value
Female	53	36.15 (15.52)	.020	.984
Male	42	36.08 (17.33)		

p<0.001***, p** value<0.01 and * p value<0.05.

Table 16 showed the comparison between female and male asthma patients with regard to psychiatric disorder. There was no significant difference between male and female asthma patients with regard to psychiatric disorder. The total SF-36 mean of the female asthma patients with psychiatric disorder was 36.15 (SD = 15.52).And the total SF-36 mean of male asthma patients with psychiatric disorder was 36.08 (SD = 17.33). The total number of asthma patients with psychiatric disorder was 95. The number of male with psychiatric disorder was 42 while the number of female was 53.

Table 17: Associations between age, duration of asthma disease, current smoker, excessively drinks soft drink regularly, regular physical work, regular exercise, pending maximum day time smoky and dusty area, family structure and health-related quality of life among asthma patients

Characteristics		Health-Related Quality of Life (HRQoL)			
		n	Mean (SD)	t	p-value
Age (Y)	18 to 39	193	67.34 (21.76)	9.212	.000***
	40 to 70	207	47.88 (20.48)		
Duration of Asthma disease	Below 3 years	131	63.28 (21.96)	3.618	.000***
	3 years and above	268	54.47 (23.25)		
Current Smoker	Yes	57	59.65 (25.14)	.834	.405
	No	343	56.88 (22.90)		
Excessive intake Non-alcoholic / Carbonated drinks regularly	Yes	56	70.79 (22.34)	4.895	.000***
	No	344	55.04 (22.21)		
Regular physical work	Yes	282	59.94 (22.50)	.3.611	.000***
	No	181	50.88 (23.74)		
Regular exercise	Yes	59	57.29 (21.88)	.008	.994
	No	341	57.27 (23.47)		
Spending maximum day time in smoky & dusty area	Yes	233	55.41 (23.54)	-1.801	.072
	No	177	59.61 (22.66)		
Family structure	Extended family	167	55.09 (22.57)	-1.594	.112
	Nuclear family	233	58.83 (23.59)		

******* p<0.001, p** value<0.01 and * p value<0.05.

Table 17 showed the comparisons between age, duration of asthma disease, current smoker, excessively drinks soft drink regularly, regular physical work, regular exercise, spending maximum day time smoky and dusty area, family structure and health-related quality of life among asthma patients. There was highly significant difference between age and health related quality of life ($p<0.001$). Total SF-36 mean of asthma patients of up to 39 years was 67.34 (SD = 21.76) and total SF-36 mean of asthma patients of 40 years and above was 47.88 (SD = 20.48). Here, older age patients with asthma showed lower quality of life than their counterpart. According to the duration of disease of asthma, highly significant differences was observed between duration of asthma diseases and health related quality of life ($p<0.001$). The patients who were suffering from asthma for below 3 years showed higher mean average than those who were suffering from asthma for 3 years and above. Total SF-36 mean of the patients who were suffering from asthma for below 3 years was 63.28 (SD = 21.96)and total SF-36 mean of the patients who were suffering from asthma for 3 years and above was 54.47 (SD = 23.25). No significant difference between current smoking status and health-related quality of life was found. The total SF-36 mean of current smoker among asthma patients was 59.65 (SD = 25.14). The total SF-36 mean of non-smokers of the same group was 56.88 (SD = 22.90).

There was highly significant mean difference between the status of excessive intake of non alcoholic/ carbonated drinks and health-related quality of life ($p<0.001$). In this result, important point was that patients who intake excessively non-alcoholic / carbonated drinks regularly showed higher total SF-36 mean than those who did not drink so. Here, 56 asthma patients intake non alcoholic/ carbonated soft drinks regularly. Among them 45 were of up to 39 years. Therefore, it was the possible factor of higher significant difference between the status of excessively drink soft drinks regularly and health-related quality of life. The total SF-36 mean of the asthma patients who excessively drank soft drinks regularly was 70.79 (SD = 22.34). The total SF-36 mean of the asthma patient who did not excessively drink soft drinks regularly.

There was highly significant difference between the status of regular physical work and health-related quality of life ($p<0.001$). Asthma patients who did physical work regularly showed higher quality of life than those who did not so. The total SF-36

mean of those who worked regularly was 59.94 (SD = 22.50). The total SF-36 mean of those who did not do physical work regularly was 50.88 (SD = 23.74).

There was no significant difference between physical exercise status and health related quality of life. The total SF-36 mean of those who practiced exercise regularly was 57.29 (SD = 21.88). The total SF-36 mean of those who did not practice exercise regularly was 57.27 (SD = 23.47).

There was no significant difference between the status of spending maximum day time in smoky and dusty area and health related quality of life. The total SF-36 mean of those who spent maximum day time in smoky and dusty area was 55.41 (SD = 23.54). The total SF-36 mean of those who did not spend maximum day time in smoky and dusty area was 57.27 (SD = 23.47).

There was no significant difference between family structure of asthma patients and their health related quality of life. Asthma patients' total SF-36 mean of those who lived in extended family was55.09 (SD = 22.57) and total SF-36 mean of those who lived in nuclear family was 58.83 (SD = 23.59).This result explained that family structure did not differ in health-related quality of life of asthma patients.

DISCUSSION

This chapter will focus on the critical review of the results of the present study. The present research was designed to determine the common mental disorders among asthma patients attending the outpatient service, to evaluate association between the psychiatric status and health related quality of life (HRQoL) of adults suffering from asthma and to determine health related quality of life (HRQoL) of asthma patients compared with control.

In this study, 33.76% of asthma patients attending outpatients' service obtained psychiatric diagnosis according to the SCID-I (table 5). The rate of psychiatric disorder among patients with chronic physical diseases had been shown to be 29% to 40% (Wells, Golding, & Burname, 1988; Minagawa, Uchitomi, & Yamawaki, 1996). The rate of psychiatric disorder among asthma patients was 34% in a study (Lovie et al., 2005). The nationwide community survey on psychiatric disorder in Bangladesh has been reported that overall psychiatric morbidity rate is 16.1% (Firoz, Alam, Rahman, & Zaman et al., 2007). In that community survey, it was seen that the rate of major depressive disorder (MDD) was 4.61%, generalized anxiety disorder (GAD) was 2.87%, obsessive compulsive disorder (OCD) was 0.45%, panic disorder was 1.3% and somatoform disorder was 1.42%. The present study showed that the rate of major depressive disorder (MDD) was 8.16%, generalized anxiety disorder (GAD) was 4.24%, obsessive compulsive disorder (OCD) was 1.33%, panic disorder was 4.91% and somatoform disorder was 0.25%. The present study found high rate of MDD, GAD, panic disorder and OCD among asthma patients who were attending the outpatients' service. The total patient sample size was 400 in this study. Among them 95 participants showed positive results in SCID-I. In this study, dysthymic disorder, major depressive disorder (MDD), panic disorder and generalized anxiety disorder (GAD) were found as most common forms of psychiatric morbidity among asthma patients. A UK primary care survey published in 2007 (Cooper et al., 2007), reported higher anxiety and depression scores in adults with asthma than the general community, and a prevalence of panic disorder of 16% in those with asthma. It was found that the rate of dysthymic disorder was 13.32%, major depressive disorder was 8.16%, panic disorder was 4.91% and generalized anxiety disorder was 4.24%. And

obsessive compulsive disorder was 1.33%, social phobia was 0.75%, somatoform disorder was 0.25%, depressive disorder nos was 0.50% and anxiety disorder nos was 0.25%. In a study, GAD affected 4% of the sample (Lavoie, Boudreau, Plourde, Campbell, & Bacon, 2011). The present study reported the similar findings where it was found that GAD affected 4.24 % of the sample. Studies showed that anxiety, depression and panic disorders were more common among people with asthma than in the general population (Nowobilski et al., 2007). Depressive symptoms are common in adults with asthma and associated with poorer health outcomes, including greater asthma severity and risk of hospitalization for asthma. The present study revealed that dysthymic disorder was 13.3%, major depressive disorder was 8.16% and depressive disorder nos was 0.50%. This study showed more similar result with other study where the prevalence of depressive symptoms was 18% among adults with asthma and the population size was 743 (Eisner, Katz, Lactao, & Iribarren, 2005). An observational study in India suggests that depression is highly prevalent in asthma patients. That was a tertiary care hospital based study where 65% asthma patients showed depression on first visit where sample size was 100 (Mishra, Kundu, Majumder, Kundu, & Mitra, 2015). Above research result showed high percentage of depression according to this research. Depressive symptoms, panic disorder, anxiety disorder are common in asthma patients (Zielinski et al., 2000). Accurate diagnosis of comorbid psychiatric disorder such as depressive and anxiety disorders in patients with chronic medical illness is essential in understanding the cause and in optimizing the management of somatic symptom burden (Katon, et al., 2007). However, a person's mental health including stress, anxiety, and depression can affect their ability to manage their asthma (Rimington et al., 2001).

There was statistically significant difference in educational qualification and occupation ($p<0.05$) among asthma patients with and without psychiatric disorder (table 7). Female patients affected rate was higher than male among asthma patients with and without psychiatric disorder. Females were more likely to have a psychiatric disorder compared with male patients observed also in another study (Cazzola et. al., 2011).

According to living area and monthly income, there was highly significant difference among asthma patients with and without psychiatric disorder ($p<0.01$). Patients who

were lived in villages observed more to have a psychiatric disorder. Psychiatric morbidity was found higher among them who were able to write and read than illiterates. In patient group, higher percentages to have psychiatric disorder were found in Sylhet and Khulna than other divisions. The percentages of psychiatric disorders were found high rate among housewives. Mental disorders among the poor were found higher than the rich. Disadvantaged socioeconomic status predicted depression comorbidity in individuals with chronic disease (Kilzieh, Rastam, Maziak, & Ward, 2008). Higher percentage of psychiatric morbidity among married patients was found than single patients. Asthma patients who lived in a nuclear family had high percentage of psychiatric disorder than who lived in an extended family. In religious status, Muslim asthma patients suffered more psychiatric disorder than Hindus. Interestingly, current non-smoker asthma patients were found high rate of psychiatric disorder. Patients who did physical exercise regularly showed low rate of psychiatric morbidity. Asthma patients, who intake excessively non-alcoholic / carbonated drinks regularly, were found lower percentage than who did not drink. Asthma patients who spent maximum day time in smoky and dusty areas were found high rate of psychiatric morbidity. There was no significant difference in the duration of the asthma diseases among participants with and without psychiatric disorder. But Psychiatric morbidity rate was high according to duration of illness. Asthma patients who had been suffering from asthma for 3 years or more showed high rate of psychiatric disorder. It revealed that patients who had family history of asthma showed higher percentage and who did not have so showed lower morbidity rate. The patients who lived in towns (smaller than city) had low percentage rate of psychiatric disorder. There was no significant difference in age among asthma patients with and without psychiatric disorder. Interestingly, patients who had family history of psychiatric disorder showed lower rate of psychiatric morbidity. There was no significant difference in family history of psychiatric disorder among asthma patients with and without psychiatric disorder (table 7).

The patient with psychiatric disorder showed lower quality of life than patients with no psychiatric disorder (table 8 & 9). The patient with psychiatric disorder HRQoL (SF-36) mean was 36.12 (SD = 16.26) and without psychiatric disorder HRQoL (SF-36) mean was 65.02 (SD = 20.97). There were highly significant differences of health related quality of life between patients with and without psychiatric disorder

($p<0.001$). However, the adjusted analysis showed a slightly lower but significant effect ($\beta=24.38$, $p<0.001$). So, there was an association between the psychiatric status and health related quality of life (HRQoL) of adults suffering from asthma. It was evident that, psychiatric morbidity impaired person's quality of life. The quality of life of asthma patient who had a diagnosis of psychiatric disorder was so poor compared with counterpart. In asthma patients, HRQoL impairment was higher than in those without one. Psychiatric diagnosis was associated with greater perceived impairment from asthma (Feldman et al., 2005). So, the necessity of increasing clinical attention, screening with validated questionnaires, participants of consultant-liaison services in the diagnosis and treatment of asthma diseases has been emphasized for better outcome.

In this study, patient group sample size was 400 and control group size was also 400. Control group's participants were healthy individuals who had no chronic or current diseases. It was reported that healthy individuals had been included for comparison to determine health related quality of life (HRQoL) of asthma patients. There was highly significant difference between two groups' quality of life ($p<0.001$). Patient group (Mean = 57.27, SD = 23.22) showed lower health related quality of life than healthy individual control group (Mean = 81.94, SD = 15.55).

The study clearly showed that asthma patient group's physical functioning (PF) mean was 62.37 (SD = 28.52) whereas control group mean was 82.75 (SD = 22.01). The scores on the physical functioning domain scale indicated that the level of respondents' perceptions of their quality of life was influenced by their physical condition. There was highly significant difference between patient and control group's physical functioning (PF) domain ($p<0.001$). The asthma patient performed poorer in vigorous activities such as lifting heavy objects, climbing stairs and walking more than a kilometer. On the other hand, performance of the patient group was very poor of moderate activities such as bending, kneeling or stooping, bathing and dressing themselves.

In the domain, role limitation due to physical function (RP) of SF-36, the study showed RP mean in patient group and control group were 50.84 (SD = 34.23) and 76.84 (SD = 28.14) consecutively. The low score of patient group made clear that

their role in daily activities was impeded by their physical state of health. There was highly significant difference between patient and control group RP domain ($p<0.001$). Bodily pain (BP) domain's mean in patient group was 69.02 (SD = 25.44), but in the control group, mean was 89.32 (SD = 13.36). The low scores on this dimension indicated to what extent the respondents' experience of bodily pain harm their performance of daily activities, including work-related duties in the public domain and tasks within the home environment. There were highly significant differences between patient and control group in bodily pain (BP) domain of SF-36 ($p<0.001$).

The Social functioning (SF) domain of SF-36, patient and control group mean were 71.87 (SD = 26.35) and 84.60 (SD = 18.12) consecutively. This result showed that patient group scored very low compared with their counterpart. There was highly significant difference between patient and control group's social functioning domain of SF-36 ($p<0.001$). The domain social functioning referred to social activities and interaction with significant others such as family members, friends, neighbours and other social relation were very poor in patient groups. It was a highly warning issue in asthma disease for better outcome.

The general mental health (GMH) of patient and control group mean were 60.45 (SD = 29.36) and 84.40 (SD = 15.41) respectively. The general mental health domains measured in terms of some area such as inner feeling with full of energy, happy, feeling calm and peaceful, very nervous, feeling worn out and tired. This study showed that there were highly significant differences between patient and control group's general mental health domain of SF-36 ($p<0.001$).

The domain role limitation due to emotional health problems (RE) of patients mean was 48.65 (SD =45.50) and control mean was 87.04 (SD = 26.28). This domain assessed the level of the emotional condition of the respondent such as feeling depressed or anxious, limits his/her daily functioning and ability to perform roles, such as in cutting down on the amount of time spent on work or other activities. This study clearly showed that patients who were suffering from asthma performed very poor in their daily life than healthy individual. This difference was highly significant between two groups ($p<0.001$).

The general health perception (GHP) of an individual was measured in terms of concepts such as excellent, very good, good, fair or poor, getting ill easier than other people, and just as healthy as anyone he/she knew. So, in this study asthma patients' GHP mean was 40.25 (SD = 25.56) and control GHP mean was 73.36 (SD = 19.42). The result explained that they felt very tired other than control. The patient group scored poorer in GHP domain of SF-36 and highly significant difference observed between two groups ($p<0.001$).The domain vitality, energy and fatigue (VEF) mean was 54.72 (SD = 24.28) in the patient group, where mean was 77.21 (SD = 20.87) in the control group. This domain relates to the respondent's experience of feeling energetic and full of liveliness, or worn out and tired. Asthma patient showed lower score in this domain. The low score of VEF meant that they felt very tired all the time than control individual. This study showed that there was highly significant mean difference between two group's VEF domain of SF-36 ($p<0.001$).

Besides, mean of four mental health sub-scales (RE, VEF, GMH and SF) and four physical health sub-scales (PF, RP, BP and GHP) score was calculated to capture mental component summary score (MCS) and physical component summary score (PCS), respectively. The mental component summery (MCS) were significantly lower in the asthma patient group than the control ($p<0.001$). The MCS mean was 58.92 (SD = 24.97) and 83.31 (SD = 15.46) in patient and control group respectively. The physical component summery (PCS) were significantly lower in the asthma patient group than the control ($p<0.001$). The PCS mean was 55.62 (SD = 23.85) and 80.57 (SD = 18.00) in patient and control group respectively (table10). Asthma-specific HRQoL was associated with future asthma-related utilization and cost (Eisner et al., 2002).

The study (Table 11) showed the comparison between female patient group and control group. There was highly significant difference between two groups' quality of life ($p<0.001$). Female patient group (Mean = 54.51, SD = 22.86) showed lower quality of life than female control group (Mean = 80.03, SD = 16.60). It was clearly evident that female asthma patient health related quality of life was very poor than control. Asthma patient health-related quality of life was negatively associated being a female, study showed (Böhmer et al., 2016).

Female asthma patient group PF mean was 58.85 (SD = 28.42) where as control PF mean was 79.20 (SD = 24.70). The low score of female patients group mean explained that asthma female patients had limited a lot in performing all physical activities including dressing, bathing etc. This study showed that there was highly significant mean difference between two group's PF domain of SF-36 ($p<0.001$).

RP mean in patient group and control group were 47.62 (SD = 33.65) and 71.81 (SD = 30.61) consecutively. It revealed that female asthma patient faced problems with work and others in daily activities as a result of poor physical health. This study showed that there was highly significant mean difference between two group's RP domain of SF-36 ($p<0.001$).

Bodily pain (BP) mean in patient group was 66.02 (SD = 24.79), but in control group mean was 88.05 (SD = 13.25). The low score of bodily pain showed that they felt severe pain and extremely limiting their activities due to pain. But in healthy female control group experienced no pain or limiting their work due to pain. This study showed that there was highly significant mean difference between two group's BP domain of SF-36 ($p<0.001$).

The female asthma patient GHP mean was 45.65 (SD = 44.37) and control female mean was 37.90 (SD = 25.57). The poor score of GHP domains clearly explained that female asthma patients evaluated their personal health as poor and believed it was likely to get worse. The GHP of SF-36 was significantly lower in the female asthma patients than the control ($p<0.001$).

The GMH of female patient and control group mean were 58.17 (SD = 27.99) and 83.74 (SD = 16.49), respectively. The poor score explained that they had feeling of nervousness and depression. This study showed that there was highly significant mean difference between two group's GMH domain of SF-36 ($p<0.001$).

The SF domain of female patients and control group mean were 69.35 (SD = 26.47) and 82.96 (SD =19.12) consecutively. The female asthma patients low score meant that there had extreme interference with normal social activities due to poor physical

and mental health. This study showed that there was highly significant mean difference between two group's SF domain of SF-36 ($p<0.001$).

The domain RE mean was 45.65 (SD = 44.37) and 88.16 (SD = 24.07) in asthma and control group, consecutively. The study result showed, female asthma patients faced problems in their daily activities due to emotional health problems. This study showed that there was highly significant mean difference between two group's RE domain of SF-36 ($p<0.001$).

The domain VEF mean was 52.50 (SD = 23.96) in patient group, where control mean was 75.81 (SD = 23.82). The low score meant that they felt very tired all the time. This study showed, there was highly significant mean difference between two group's VEF domain of SF-36 ($p<0.001$). The MCS mean was 56.42 (SD = 24.25) and 82.67 (SD = 16.01) in female patient and control group respectively. The PCS mean was and 52.61 (SD = 23.84) and 77.39 (SD = 19.74) in female patient and control group respectively. The mental component summery (MCS) and physical component summery (PCS) of SF-36 were significantly lower in the female asthma patients group than the control ($p<0.001$). The female of patient group scored poorer in all domains of SF-36 and highly significant difference observed between two groups ($p<0.001$).

This study showed (Table 12) the comparison between male patient group and control group. There was highly significant difference between two groups' quality of life ($p<0.001$). Male patient group (Mean = 60.03, SD = 23.30) showed lower quality of life than control (Mean = 83.85, SD = 14.21). The study witnessed that asthma male patient group PF mean was 65.90 (SD = 28.26) where as control PF was 86.30 (SD = 18.33). They had limited a lot to perform their physical activities. So It was clearly evident that male asthma patient physical health status was very poor than control group. This study showed that there was highly significant mean difference between two group's PF domain of SF-36 ($p<0.001$).

RP mean in male patient group and control group were 54.06 (SD = 34.59) and 81.87 (SD = 24.48) consecutively. The male asthma patients performed poorer in daily

activities than the control. This study showed that there was highly significant mean difference between two group's RP domain of SF-36 ($p<0.001$).

BP mean in male patient group was 71.96 (SD = 25.80), but in control group mean was 90.60 (SD = 13.39). The low score of bodily pain showed that they felt severe pain and extremely limiting their activities due to pain. This study showed that there was highly significant mean difference between two group's BP domain of SF-36 ($p<0.001$).

The SF domain of male patients and control group mean were 74.40 (SD = 26.05) and 86.25 (SD = 16.95) consecutively. The male asthma patients' low score meant that there was extreme interference with normal social activities due to poor physical and mental health. This study showed that there was highly significant mean difference between two group's SF domain of SF-36 ($p<0.001$).

The GMH of male patients and control group mean were 62.73 (SD = 30.56) and 85.06 (SD = 14.25). The low score explained that they male asthma patients had feeling of nervousness and depression. This study showed that there was highly significant mean difference between two group's GMH domain of SF-36 ($p<0.001$).

Three domains RE, VEF and GHP mean were 51.66 (SD = 46.51), 28.16 (SD = 24.46) and 42.60 (SD = 25.40) in male patients, where 85.91 (SD = 28.16), 78.61 (SD = 17.38) and 76.21 (SD = 17.93) in the control. The domain RE assessed the level of the emotional condition of the respondent such as feeling depressed or anxious, limits his/her daily functioning and ability to perform roles, such as in cutting down on the amount of time spent on work or other activities. This study showed, there was highly significant mean difference between two group's RE domain of SF-36 ($p<0.001$).The low score of VEF meant that they felt very tired all the time than control individual. This study showed, there was highly significant mean difference between two group's VEF domain of SF-36 ($p<0.001$). The poor score of GHP domains clearly explained that male asthma patients evaluated their personal health as poor and believed that it was likely to get worse. This study showed that there were highly significant mean differences between two group's GHP domain of SF-36 ($p<0.001$).

The MCS mean was 61.43 (SD = 25.49) and 83.96 (SD = 14.89) in male patient and control group respectively. The PCS mean was and 58.63 (SD = 23.53) and 83.74 (SD = 15.49) in male patient and control group respectively. The mental component summery (MCS) and physical component summery (PCS) of SF-36 were significantly lower in the male asthma patients group than the control ($p<0.001$). The male participants of patient group scored poorer in all domains of SF-36 and highly significant difference observed between two groups ($p<0.001$).

The study showed the comparison between the female and male asthma patient group (table 13). Female patient group (Mean = 54.51, SD = 22.86) showed lower quality of life than the male patient group (Mean = 60.03, SD = 23.30). This study showed that female asthma patients group PF mean was 58.85 (SD = 28.42) whereas male asthma patient group PF was 65.90 (SD = 28.26). This difference was statistically significant between two groups ($p<0.05$). The female asthma patient performed poorer in vigorous activities such as lifting heavy objects and walking more than a kilometer. Patient group performance was also very poor in moderate activities such as bending, kneeling or stooping, bathing and dressing themselves. But male asthma patients performed slightly better than female asthma patients in physical functioning. BP mean in the female patient group was 66.08 (SD = 24.79), but in the male patient group mean was 71.96 (SD = 25.80). The low score of bodily pain showed that they felt severe pain and extremely limited their activities due to pain. But male asthma patients showed slightly better than female. The female asthma patient group scored poorer in two sub-domains PF and BP of SF-36 and statistically significant difference observed between two groups ($p<0.05$). A study showed that asthma patient health-related quality of life was negatively associated being a female (Böhmer et al., 20016). RP mean in the female patient group and the male patient group were 47.62 (SD = 33.65) and 54.06 (SD = 34.59) consecutively. The SF sub-domain of the female patient and male patient group mean were 69.35 (SD = 26.47) and 74.40 (SD = 26.05) consecutively. The GMH of the female patients and the male group mean were 58.17 (SD = 27.99) and 62.73 (SD = 30.56). Three domains RE, VEF and GHP mean were 45.65 (SD =44.37), 52.50 (SD = 23.96) and 37.90 (SD = 25.57) in the female asthma patient group, where 51.66 (SD = 46.51), 56.94 (SD = 24.46) and 42.60 (SD = 25.40) in the male asthma patient group. Other than PF and BP domain

of SF-36, there was no significant difference between female and male groups. The MCS mean was 56.42 (SD =24.25) and 61.43 (SD = 25.49) in female patient and male patient group respectively. The PCS mean was and 52.61 (SD = 23.84) and 58.63 (SD = 23.53) in female and male patient group respectively. The physical component summery (PCS) of SF-36 was significantly low in female asthma patients group than male ($p<0.05$). There were statistically significant differences between two groups' quality of life ($p<0.05$). Previous studies concordantly reported that female asthma patients have a lower HRQoL than male patients (Belloch, Perpina, Martinez-Moragon, de Diego, & Martinez-Frances, 2003; Leander et al., 2011; Wijnhoven, Kriegsman, Snoek, Hesselink, & de Haan, 2003). Our finding results were similar with the data which were obtained from the literature. One may think of two possible explanations for this finding, namely that female patients with asthma have either a more severe disease than male patients or that (Naleway, Vollmer, Frazier, & O'Connor , Magid, 2006) or they have increased recognition of their symptoms and a higher likelihood of seeking medical care (Prescott, Lange, & Vestbo, 1997; Trawick, Holm, & Wirth, 2001). Gender differences may have implications for the adequate treatment of asthma, further studies investigating this phenomenon should be conducted.

This study also showed the comparison between the female and male healthy individual of control group (table 14). Interestingly, there was statistically significant difference between two groups' quality of life ($p<0.05$). Female healthy individual of control group (Mean = 80.03, SD = 16.60) showed lower quality of life than the male healthy individual control group (Mean = 83.85, SD =14.21). This study clearly showed that female of control group PF mean was 79.20 (SD = 24.70) whereas male PF mean was 86.30 (SD = 18.33). There was highly significant difference between two groups ($p<0.01$). RP mean in the control group's female and male were 71.81 (SD = 30.61) and 81.87 (SD = 24.48) consecutively. There were highly significant difference between two groups ($p<0.001$). The domain GHP mean were 70.51 (SD = 20.45) and 76.21 (SD = 17.93) consecutively. There were highly significant difference between two groups ($p<0.01$). BP mean in the female of control group was 88.05 (SD = 13.25), but in the male control group mean was 90.60 (SD = 13.39). The SF domain of the female and male control group mean were 82.96 (SD = 19.12) and

86.25 (SD = 16.95) consecutively. The GMH of the female and male control group mean were 83.74 (SD = 16.49) and 85.06 (SD = 14.25). Two domains of SF-36, RE and VEF mean were 88.16 (SD = 24.07), 75.81 (SD = 23.82) and 85.91 (SD = 28.16), 78.61 (SD = 17.38) in female and male healthy individuals' control group consecutively.

The female of control group scored poorer in all domains of SF-36 other than RE. Although in three domains of MCS female healthy individuals' scored lower than male, the domain RE (role limitations due to emotional problems) scored higher than male. This result explained that, besides they felt tired, nervous or low mood, female may not limit their activities. This finding was interested in the study. Female respondents in control group evaluated their physical health status negatively compared with male, although she was healthy. May be it is a cultural phenomenon in this population. Similar finding was experienced in another study (Islam & Akter, 2015). Further in-depth study is needed to explore these issues. The MCS mean was 82.67 (SD = 16.01) and 83.96 (SD = 14.89) in female and male control group respectively. The PCS mean was and 77.39 (SD = 19.74) and 83.74 (SD = 15.49) in female and male control group respectively. The PCS of SF-36 was significantly lower in the female of control group than the male ($p<0.001$).

In this study, it was clearly showed that there were differences among the asthma patient group with psychiatric disorder and without psychiatric disorder according to their quality of life (table 15). Asthma patient with psychiatric disorder led a poor life than those with no psychiatric disorder. There was highly significant difference between two groups' quality of life ($p<0.001$). Patient with psychiatric disorder group (Mean = 36.12, SD = 16.26) showed lower quality of life than without psychiatric disorder group (Mean = 65.01, SD = 20.96). Other study results also suggest that psychiatric disorders are prevalent among asthmatics and are associated with worse asthma control and quality of life (Lavoie et al., 2005).

It was clearly showed that patient with psychiatric disorder PF mean was 43.37 (SD = 25.10) whereas patient without psychiatric disorder PF mean was 67.20 (SD = 28.13). The difference was highly significant between two groups ($p<0.001$). The asthma patient with psychiatric disorder group performed poorer in vigorous activities such as lifting heavy objects, climbing stairs and walking more than a kilometer. On the other

hand, performance of the patient without psychiatric disorder group was also very poor of moderate activities such as bending, kneeling or stooping, bathing and dressing themselves. Psychological distress and decreased feelings of control are common in asthma and are significantly associated with physical health status (Adams et al., 2004). RP mean with and without psychiatric disorder in the patient group were 29.21 (SD = 27.14) and 57.53 (SD = 32.76) consecutively. The low score of patient group with psychiatric disorder made clear that their role in daily activities was impeded by their physical state of health. There were highly significant differences between patient and control group RP domain ($p<0.001$).

BP mean in the asthma patient group with psychiatric disorder was 51.34 (SD = 25.31), but in the asthma patient group without psychiatric disorder mean was 75.55 (SD = 21.63). The low scores on this domain indicated to what extent the respondents' experience of bodily pain harm their performance of their daily activities, including work-related duties in the public domain and tasks within the home environment. There was highly significant difference between two groups' BP domain of SF-36 ($p<0.001$).

The SF domain of the patient group with and without psychiatric disorder were 54.78 (SD = 26.46) and 77.57 (SD = 24.95) consecutively. The domain social functioning referred to social activities and interaction with significant others such as family members, friends, neighbours and other social interaction were very poor in patient groups. The asthma patients with psychiatric disorder group showed low score meant that they had extreme interference with normal social activities due to poor physical and mental health. There was highly significant mean difference of SF domain between patient with psychiatric disorder and without psychiatric disorder ($p<0.001$).

The GMH of the patient group with and without psychiatric disorder mean were 37.78 (SD = 29.79) and 69.75 (SD = 21.02) consecutively. The general mental health (GMH) domain measured in terms of some area such as inner feeling with full of energy, happy, feeling calm and peaceful, very nervous, feeling worn out and tired. This study showed that there was highly significant difference between two group's general mental health domain of SF-36 ($p<0.001$). In this section low score meant that

patient with psychiatric disorder they had no enjoyment in their life. As a result, their performance in daily life became worse.

The VEF of the patient group with and without psychiatric disorder mean were 33.23 (SD = 20.54) and 64.04 (SD = 20.44). This domain relates to the respondent's experience of feeling energetic and full of liveliness, or worn out and tired. Asthma patient showed lower score in this domain. The low score of VEF meant that they felt very tired all the time than counterpart. This study showed that there was highly significant difference between two group's VEF domain of SF-36 ($p<0.001$).

The GHP of the patient group with psychiatric disorder mean was 19.95 (SD = 15.31). The GHP mean was 47.20 (SD = 24.98) of the patient group without psychiatric disorder. The general health perception (GHP) of an individual was measured in terms of concepts such as excellent, very good, good, fair or poor, getting ill easier than other people, and just as healthy as anyone he/she knows. There was highly significant difference between two groups' mean ($p<0.001$).

The RE of the patient group with and without psychiatric disorder mean were 19.26 (SD = 32.44) and 61.27 (SD = 44.83). This domain assessed the level of the emotional condition of the respondent such as feeling depressed or anxious, limits his/her daily functioning and ability to perform roles, such as in cutting down on the amount of time spent on work or other activities. This study clearly showed that patients with psychiatric disorder performed very poor in their daily life than without psychiatric disorder. The differences were highly significant between two groups ($p<0.001$). The study showed that the worst adjustment to the diseases, related to emotional involvement (Bombardier, D'Amico, & Jordan, 1990).

The study showed the comparison of all SF-36 domains among the asthma patient group with psychiatric disorder and without psychiatric disorder (table 15). There was highly significant difference in all domains of SF-36 between two groups' health related quality of life ($p<0.001$).

The MCS mean of two groups were 36.26 (18.29) and 68.16 (21.20). Patient with psychiatric disorder scored very poor than without. The PCS mean of two groups were 35.97 (17.47) and 61.87 (22.84). The MCS and PCS of SF-36 mean were significantly lower in the asthma patient group with psychiatric disorder than without

psychiatric disorder ($p<0.001$). Other study also (Afari, Schmaling, Barnhart, & Buchwald, 2001) reported that asthma patients with a comorbid psychiatric disorder had a lower PCS and MCS than asthma patients without psychiatric disorder. This study showed that physical, mental emotional and social functioning impaired due to psychiatric disorder among asthma patients (Feldman et al., 2005). The study clearly showed that comorbid psychiatric disorders of asthma patients were related to poor quality of life (Goethe, Maljanian, Wolf, Hernandez, & Cabrera, 2001). Others studies also showed that asthma is associated with reduced health-related quality of life and people with both depression and asthma reported poorer health-related quality of life than people with asthma without depression (Opolski & Wilson, 2005). Improved strategies are needed to target interventions towards people experiencing poor HRQoL (Upton, Lewis, Humphreys, Price, & Walker, 2016).

The total number of asthma patients with psychiatric disorder was 95. Among them, female with psychiatric disorder were 53 and male with psychiatric disorder were 42 (table 16). There was no significant difference in health-related quality of life of male and female asthma patients with psychiatric disorder. This study explained that overall quality of life of asthma patients with comorbid psychiatric disorder did not vary in gender differences.

In this study, It was clearly explained (table 17) that there was highly significant difference between age and health related quality of life ($p<0.001$). Total SF-36 mean of asthma patients of up to 39 years was 67.34 (SD = 21.76) and total SF-36 mean of asthma patients of 40 years and above was 47.88 (SD = 20.48). Here, elder patients with asthma showed lower quality of life. Other study also reported that younger asthma patients had poorer quality of life than older patients who adapted to their restricted life style (Laor, Cohen, & Danon, 1993).

According to the duration of disease of asthma, there was highly significant differences between duration of asthma diseases and health related quality of life ($p<0.001$). The patients who were suffering from asthma for below 3 years showed higher mean average than those who were suffering from asthma for 3 years and above. Total SF-36 mean of the patients who were suffering from asthma for below 3 years was 63.28 (SD = 21.96) and total SF-36 mean of the patients who were suffering from asthma for 3 years and above was 54.47 (SD = 23.25).

There was highly significant difference between the status of regular physical work and health-related quality of life ($p<0.001$). Asthma patients who did physical work regularly, they showed higher quality of life than who did not. The total SF-36 mean was 59.94 (SD = 22.50) who worked regularly. The total SF-36 mean was 50.88 (SD = 23.74) who did not do physical work regularly. This study clearly explained that asthma patients' physical health, mental health, social and emotional functioning that means overall health-related quality of life varied and impaired for their age, duration of disease, regular physical work. Other study showed asthma was associated with an impairment of HRQoL in adults. Additional association was found for older age also (Böhmer et al., 2016). According to the result of this study, we can suggest that regular physical works and daily activities may helpful for asthma patients to lead better quality of life. This study also explained that longer diseases duration impacted negatively on HRQoL (Laor et al., 1993).

There was highly significant mean difference between the status of excessive intake non-alcoholic / carbonated soft drinks regularly and health-related quality of life ($p<0.001$). In this result, important point was that patients who drank excessively soft drinks regularly showed higher total SF-36 mean than those who did not drink so. Here, 56 asthma patients drank soft drinks regularly. Among them 45 were of up to 39 years. Therefore, it was the possible factor of higher significant differences between the status of excessive intake non-alcoholic / carbonated soft drinks regularly and health-related quality of life. The total SF-36 mean of the asthma patients who excessive intake non-alcoholic / carbonated soft drinks regularly was 70.79 (SD = 22.34). The total SF-36 mean of the asthma patient who did not excessively drink soft drinks regularly.

This study clearly explained that there was no significant difference between the statuses of current smoker, excessively drinks soft drink regularly, regular exercise, spending maximum day time smoky and dusty area, family structure and health-related quality of life among asthma patients. Total SF-36 mean of asthma patients was 55.09 (SD = 22.57) who lived in extended family and total SF-36 mean of those who lived in nuclear family 58.83 (SD = 23.59). This result explained that family structure did not differ in health-related quality of life of asthma patients.

The present study concludes that the prevalence of psychiatric disorder among asthma patients is an alarming issue. There is a significant association between psychiatric status and health related quality of life. Health related quality of life (HRQoL) is highly affected in asthma patients. This study confirms that psychiatric morbidity is high among asthma patients. So this finding suggested that an interdisciplinary approach is necessary for the management of asthma patients as well as to improve their physical, mental, emotional and social functioning.

LIMITATIONS

Every research has some limitations. The current study is not an exception. Despite the overall positive results of this study, it is important to acknowledge its limitations.

The systematic sampling technique was not applied in this study. There were many asthma patients attending the outpatient service with comorbidity conditions. In that case, after all doctor's referral, the researcher did not include them as sample according to its exclusion criteria.

In this study, DSM-IV Axis-II disorders were not determined. So the rate of personality disorders among asthma adult patients was unrecognized in Bangladesh.

The researcher selected the place of data collection where the sample was most available and appropriate. The data were collected from the major hospitals and clinics of the districts after the specialist doctor's referral. Therefore, data were not collected separately from rural and urban sample. Moreover, the data were not collected from ethnic group separately.

RECOMMENDATION

The study result reveals high association of depression, anxiety and other neurosis disorders with asthma. This indicates that psychological interventions should be necessarily added with the medical treatment for an asthma patient. It is also needed to start multidisciplinary team approach in the management of asthma. Community health workers should be trained on identifying associated mental health problems of asthma.

This study has found that asthma patients' health related quality of life is very poor compared with healthy individual. Improving disease control and screening mental health problems may be promising approaches to enhance patients' quality of life who are suffering from asthma. Interventional studies are also warranted in this field.

The study result reported that the quality of life of female asthma patients was poorer than the male. Older age patients showed lower quality of life than the younger. The asthma patients, who were suffering from the disease for three years and above, found their health-related quality of life poorer than those who were suffering from asthma bellow three years. The asthma patients, who did physical works regularly, also showed better quality of life than those who led a conservative life comparatively. Therefore, in course of the intervention, treatment plan should be maintained according to these factors or findings. To maintain better physical, social, emotional, cognitive and behavioural functioning, psychoeducation might be developed through future studies.

Future study is needed on child asthma patients and DSM-IV Axis-II disorders to know the rate of child psychiatric disorders as well as personality disorders among asthma patients. The rate of asthma patients with mental health problems in rural and urban areas or in ethnic groups across Bangladesh should also be found out separately to determine the future health strategy of the government. In that case, the current study would be helpful to pave the way for future study.

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APPENDIX A

Consent Form

জনাব,

আসসালামু আলাইকুম। আমি নাঈমা জান্নাত, ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের অধীনে এমফিল গবেষক। আমার গবেষণার অংশ হিসেবেই আজ আমি আপনাদের শরণাপন্ন হয়েছি।

বিভিন্ন গবেষণায় দেখা গেছে, অ্যাজমা রোগের সাথে মানসিক সমস্যার যোগসূত্র রয়েছে। বাংলাদেশের অ্যাজমা রোগীদের ক্ষেত্রেও তেমনটি আছে কি-না এবং তা কি পরিমাণে রয়েছে, তা-ই খতিয়ে দেখা আমার গবেষণার মূল অংশ। এছাড়াও এই রোগের কারণে ব্যক্তির জীবন যাপনে কোন প্রভাব পড়ে কি-না এবং তাদের সাথে যাদের এই রোগ নেই তাদের জীবন যাপনের কোন পার্থক্য আছে কি-না, তা বিশ্লেষণ করাও এই গবেষণার অন্যতম লক্ষ্য।

আপনি যদি গবেষণাকর্মে অংশগ্রহণ করতে রাজি থাকেন, তবে অনুগ্রহ করে নিচের তথ্যগুলো প্রদান করুন। আপনার নিকট থেকে প্রাপ্ত তথ্য সম্পূর্ণ গোপন রাখা হবে এবং কেবলমাত্র গবেষণার কাজে ব্যবহার করা হবে।

আপনার সহযোগিতার জন্য ধন্যবাদ।

অংশগ্রহণকারীর সম্মতিসূচক স্বাক্ষর: তারিখ:

APPENDIX B

Demographic Data Sheet

ব্যক্তিগত তথ্যাবলী

১. নামঃ

২. বয়সঃ

৩. লিঙ্গঃ ক. নারী খ. পুরুষ

৪. পেশাঃ ক. সরকারি চাকরি খ. বেসরকারি চাকরি গ. ক্ষুদ্র ব্যবসা

ঘ. মাঝারি ব্যবসা ঙ. বৃহৎ ব্যবসা চ. আইনজীবী

ছ. ডাক্তার জ. ইঞ্জিনিয়ার ঝ. শিক্ষক

ঞ. কৃষিকর্ম ত. দিনমজুর/ক্ষেতমজুর

থ. রিক্সা/কলকারখানার শ্রমিক/পরিবহন শ্রমিক

দ. জেলে/কামার/কুমার/তাঁতী ধ. প্রবাসী ন. অবসরপ্রাপ্ত

ট. শিক্ষার্থী ঠ. বেকার ড. গৃহিনী

ঢ. আয়া/গৃহকর্মী ণ. গার্মেন্টস্ কর্মী প. অন্যান্য .....

৫. শিক্ষাগত যোগ্যতাঃ

ক. নিরক্ষর খ. স্বাক্ষর গ. প্রাতিষ্ঠানিক শিক্ষা নেই, কিন্তু লিখতে পড়তে পারে

ঘ. আরবি বা অন্য ধর্মীয় শিক্ষায় শিক্ষিত ঙ. প্রিস্কুল চ. প্রথম-পঞ্চম শ্রেণী

ছ. ষষ্ঠ-নবম শ্রেণী জ. এস.এস.সি./সমমান ঝ. এইচ.এস.সি./সমমান

ঞ. স্নাতক/সম্মান/সমমান ত. স্নাতকোত্তর/সমমান থ. অন্যান্য .....

৬. বৈবাহিক অবস্থা:

ক. বিবাহিত খ. অবিবাহিত গ. তালাকপ্রাপ্ত ঘ. বিধবা/বিপত্নিক

ঙ. পরিত্যক্ত চ. অন্যান্য .....

৭. মাসিক আয়: .....

৮. আর্থ-সামাজিক অবস্থা (সামাজিক অবস্থান অনুযায়ী):

ক. উচ্চবিত্ত খ. উচ্চ মধ্যবিত্ত গ. মধ্যবিত্ত ঘ. নিম্ন মধ্যবিত্ত ঙ. নিম্নবিত্ত

৯. পারিবারিক কাঠামো: ক. যৌথ খ.একক

১০. ধর্ম: ক. ইসলাম খ. হিন্দু গ. খ্রিস্টান ঘ. বৌদ্ধঙ. অন্যান্য.....

১১. ব্যক্তিগত অভ্যাস:

- ধুমপান করেন কি-না? হ্যাঁ/না
- নিয়মিত কায়িক পরিশ্রম করা হয় কিনা? হ্যাঁ/না
- নিয়মিত ব্যায়াম করা হয় কিনা? হ্যাঁ/না
- অতিরিক্ত বোতলজাত পানীয় পান করা হয় কিনা? হ্যাঁ/না
- দিনের বেশির ভাগ সময় ধোয়াটে/ধূলোময়/স্যাঁতসেঁতে/গুমট/ অপরিষ্কার জায়গায় কাটে কি-না? হ্যাঁ/না

১২. অ্যাজমাতে ভুগছেন কত বছর ধরে? .....

১৩. পরিবার বা আত্মীয় স্বজন (যাদের সাথে রক্তের সম্পর্ক আছে) কারো অ্যাজমা আছে কি-না? হ্যাঁ/না

১৪. পরিবার বা আত্মীয় স্বজন (যাদের সাথে রক্তের সম্পর্ক আছে) কারো মানসিক সমস্যা আছে কি-না? হ্যাঁ/না

১৫. বাসস্থান: ক. শহর খ. উপশহর গ. গ্রাম

১৬. ঠিকানা: উপজেলা: জেলা:

APPENDIX C

Self Reporting Questionnaire (SRQ)
স্ব বর্ণন প্রশ্নমালা

নিচের প্রশ্নগুলোতে কিছু কষ্ট ও সমস্যার কথা আছে যা আপনার থাকতে পারে। প্রত্যেকটি প্রশ্নের জন্য *হ্যাঁ* বা *না* ঘরে টিক (✓) চিহ্ন দিন। দয়া করে বিগত *৩০ দিন* সময়ের উপর ভিত্তি করে উত্তর দিন। প্রশ্নগুলোর উত্তর দেয়ার সময় দয়া করে কারো সাথে আলোচনা করবেন না। কোন প্রশ্নের উত্তর কিভাবে দেয়া যায় তা যদি আপনি নিশ্চিত না হতে পারেন তবে অনুগ্রহ করে আপনি যা বোঝেন সেভাবে উত্তর দিন। আপনার দেয়া উত্তরগুলো গোপনীয় থাকবে তা আপনি নিশ্চিত হতে পারেন।

প্রথম অংশ

		হ্যাঁ	না
১.	আপনার কি প্রায়ই মাথাব্যথা করে?	☐	☐
২.	আপনার কি খিদে কম?	☐	☐
৩.	আপনার কি ঘুমের সমস্যা হয়?	☐	☐
৪.	আপনি কি সহজেই ভয় পান?	☐	☐
৫.	আপনার কি হাত কাঁপে?	☐	☐
৬.	আপনি কি ঘাবড়ে যান, উদ্বিগ্ন বা দুশ্চিন্তা বোধ করেন?	☐	☐
৭.	আপনার কি হজমশক্তি কম?	☐	☐
৮.	কোনো বিষয়ে ঠিকমত চিন্তা করতে কি আপনার সমস্যা হয়?	☐	☐
৯.	আপনি কি অসুখী বোধ করেন?	☐	☐
১০.	আপনার কি অল্পতেই কান্না পায়?	☐	☐
১১.	আপনার দৈনন্দিন কাজকর্মে আনন্দ পেতে আপনি কি অসুবিধে বোধ করেন?	☐	☐
১২.	কোনো বিষয়ে সিদ্ধান্ত নেয়া কি আপনার কাছে কঠিন মনে হয়?	☐	☐
১৩.	আপনার দৈনন্দিন কাজ কি ব্যাহত হচ্ছে?	☐	☐
১৪.	জীবনে কার্যকর ভূমিকা রাখতে আপনি কি অক্ষম?	☐	☐
১৫.	আপনি কি অনেক কিছুতে আগ্রহ হারিয়ে ফেলেছেন?	☐	☐
১৬.	আপনি কি নিজেকে একজন মূল্যহীন মানুষ মনে করেন?	☐	☐
১৭.	নিজের জীবনকে শেষ করে দেয়ার চিন্তা আপনার মনে কি কখনো এসেছে?	☐	☐
১৮.	আপনি কি সব সময় ক্লান্তি বোধ করেন?	☐	☐
১৯.	আপনার পেটে কি অস্বস্তিকর অনুভূতি হয়?	☐	☐
২০.	আপনি কি সহজেই ক্লান্ত হয়ে পড়েন?	☐	☐

দ্বিতীয় অংশ

		হ্যাঁ	না
১.	আপনার কি মনে হয় যে কেউ কোনভাবে আপনার ক্ষতি করার চেষ্টা করছে?	☐	☐
২.	বেশির ভাগ লোক যতটুকু মনে করে আপনি কি তার চেয়েও অনেক গুরুত্বপূর্ণ ব্যক্তি?	☐	☐
৩.	আপনার চিন্তার ক্ষেত্রে কোনরকমের বাধা বা অস্বাভাবিক কোনকিছু কি খেয়াল করেছেন?	☐	☐
৪.	আপনি কি কখনো গায়েবী আওয়াজ শুনেছেন যা অন্য লোকেরা শুনতে পায়না?	☐	☐

Self Reporting Questionnaire (SRQ)

In the last month:

'Non-psychotic'

1.	Do you often have headaches?	Yes / No
2	Is your appetite poor?	Yes / No
3	Do you sleep badly?	Yes / No
4.	Are you easily frightened?	Yes / No
5.	Do you hands shake?	Yes / No
6.	Do you feel nervous, tense or worried?	Yes / No
7.	Is your digestion poor?	Yes / No
8.	Do you have trouble thinking clearly?	Yes / No
9.	Do you feel unhappy?	Yes / No
10.	Do you cry more than usual?	Yes / No
11.	Do you find it difficult to enjoy your daily activities?	Yes / No
12.	Do you find it difficult to make decision?	Yes / No
13.	Is your daily work suffering?	Yes / No
14.	Are you unable to pay a useful part in life?	Yes / No
15.	Have you lost interest in things?	Yes / No
16.	Do you feet that you are a worthless person?	Yes / No
17.	Has the thought of ending your life been on your mind?	Yes / No
18.	Do you feel tired all the time?	Yes / No
19.	Do you have uncomfortable feelings in your stomach?	Yes / No
20.	Are you easily tired?	Yes / No

'Psychotic'

1.	Do you feel that somebody has been trying to harm you in some way?	Yes / No
2.	Are you a much more important person than most people think?	Yes / No
3.	Have you noticed any interference or anything else unusual with your thinking?	Yes / No
4.	Do you ever hear voices without knowing where they come from or which other people cannot hear?	Yes / No

APPENDIX D

SF-36

এসএফ-৩৬ স্বাস্থ্য জরিপ প্রশ্নমালা

ক্রমিক নং:

নাম: তারিখ:

নির্দেশনা: এই প্রশ্নমালা আপনার স্বাস্থ্য সম্পর্কে আপনার মতামত জানার জন্য। এই তথ্য বুঝতে সাহায্য করবে যে, আপনি কেমন বোধ করেন এবং আপনার স্বাভাবিক কাজকর্ম আপনি কতটা ভালভাবে করতে পারেন। নিম্নের প্রত্যেকটি প্রশ্নের জন্য একটি ঘরে টিক চিহ্ন দিবেন যেটা আপনার জন্য সবচেয়ে ভাল উত্তর বোঝায়।

১। সবমিলে আপনি বলবেন কি আপনার স্বাস্থ্য:

- ☐ ১. চমৎকার
- ☐ ২. খুব ভালো
- ☐ ৩. ভালো
- ☐ ৪. মোটামোটি
- ☐ ৫. খারাপ

২। এক বছর পূর্বের তুলনায়, সব মিলে আপনার স্বাস্থ্য এখন কেমন?

- ☐ ১. এক বছর পূর্বের তুলনায় এখন অনেক ভালো
- ☐ ২. এক বছর পূর্বের তুলনায় এখন কিছুটা ভালো
- ☐ ৩. এক বছর পূর্বে যেমন ছিল প্রায় তেমন
- ☐ ৪. এক বছর পূর্বের তুলনায় এখন কিছুটা খারাপ
- ☐ ৫. এক বছর পূর্বের তুলনায় এখন খুবই খারাপ

৩। নিম্নের প্রশ্নগুলো, একটি স্বাভাবিক দিনে আপনি যেসব কর্মকাণ্ড করতে পারেন সে সম্পর্কে। আপনার স্বাস্থ্য কি বর্তমানে এসব কর্মকাণ্ডে ব্যাঘাত ঘটায়? যদি তাই হয়, তবে কতটা?

৩) কর্মকাণ্ড		হ্যাঁ, অনেকটা ব্যাঘাত ঘটায় ১	হ্যাঁ, কিছুটা ব্যাঘাত ঘটায় ২	হ্যাঁ, কোনো ব্যাঘাত ঘটায় না ৩
৩(ক)	বলিষ্ঠ/কষ্টকর কাজ যেমন দৌড়, ভারি ওজন উঠানো, শ্রমসাধ্য খেলাধুলা	☐	☐	☐
৩(খ)	মাঝারী কষ্টের কাজ যেমন একটা টেবিল সরানো, মাঝারি সাইজের পানি ভর্তি একটি বালতি সরানো	☐	☐	☐
৩(গ)	৮-১০ কেজি ওজনের কাঁচা বাজার বহন করা বা উপরে তোলা	☐	☐	☐
৩(ঘ)	কয়েকতলা সিঁড়ি ওঠা	☐	☐	☐
৩(ঙ)	একতলা সিঁড়ি ওঠা	☐	☐	☐
৩(চ)	বাকা হওয়া, হাঁটু গেড়ে বসা বা সামনে ঝুঁকা	☐	☐	☐
৩(ছ)	এক মাইলের বেশি হাঁটা	☐	☐	☐
৩(জ)	কয়েক কিলোমিটার হাঁটা	☐	☐	☐
৩(ঝ)	এক কিলোমিটার হাঁটা	☐	☐	☐
৩(ঞ)	নিজে গোসল করা বা জামা কাপড় পরিধান করা	☐	☐	☐

৪। শারীরিক কারণে গত ৪ সপ্তাহে আপনার কাজে বা অন্য স্বাভাবিক দৈনন্দিন কর্মকাণ্ডে নিম্নের উল্লিখিত কোন সমস্যা হয়েছিল কি?

		হ্যাঁ	না
৪(ক)	কাজে বা অন্য কর্মকাণ্ডে যে সময় ব্যয় করতে হয় তা কমাতে হয়েছিল	☐	☐
৪(খ)	যতটুকু চেয়েছিলেন তার চেয়ে কম সম্পন্ন করেছিলেন	☐	☐
৪(গ)	দৈনন্দিন একই রকম কাজ বা কর্মকাণ্ডে সীমাবদ্ধ ছিলেন	☐	☐
৪(ঘ)	কষ্ট করে কাজ বা অন্য কর্মকাণ্ড সমাধান করিতে হয়েছিল	☐	☐

৫। আবেগজনিত সমস্যার (যেমন বিষণ্নতা বোধ বা দুশ্চিন্তার) গত ৪ সপ্তাহে আপনার কাজে বা অন্য নিয়মিত দৈনন্দিন কর্মকাণ্ডে নিম্নের কোনো সমস্যা হয়েছিল কি?

		হ্যাঁ	না
৫(ক)	কাজে বা অন্য কর্মকাণ্ডে যে সময় ব্যয় করিতে হয় তা কমাতে হয়েছিল	☐	☐
৫(খ)	যতটুকু চেয়েছিলেন তারচেয়ে কম সম্পন্ন করেছিলেন	☐	☐
৫(গ)	কাজ বা অন্য কর্মকাণ্ড যেমন যত্ন সহকারে করেন তেমন করিতে পারেন নাই	☐	☐

৬) আপনার শারীরিক অথবা আবেগজনিত সমস্যা গত ৪ সপ্তাহে পরিবার, বন্ধু, প্রতিবেশী ও দলের সাথে স্বাভাবিক সামাজিক কর্মকাণ্ডে কতটুকু ব্যঘাত ঘটিয়েছিল?

☐ ১। একেবারেই না
☐ ২। সামান্য
☐ ৩। মোটামোটি
☐ ৪। বেশকিছু
☐ ৫। চরম মাত্রায়

৭। গত ৪ সপ্তাহে আপনার শরীরের ব্যথা-বেদনা কেমন ছিল?

☐ ১। কোন ব্যথা ছিল না
☐ ২। খুব সামান্য
☐ ৩। সামান্য
☐ ৪। মোটামোটি
☐ ৫। তীব্র
☐ ৬। খুব তীব্র

৮। ব্যথা গত ৪ সপ্তাহে আপনার স্বাভাবিক কাজকে (বাড়ি এবং বাড়ির বাইরে) কি পরিমান ব্যাহত করেছিল?

☐ ১। একেবারেই না
☐ ২। অতি সামান্য
☐ ৩। মোটামোটি
☐ ৪। বেশ কিছু
☐ ৫। চরম মাত্রায়

৯। এই প্রশ্নগুলো গত ৪ সপ্তাহে কেমন বোধ করেছিলেন এবং অন্যান্য বিষয়গুলো কেমন ছিল সেই সম্পর্কে। প্রত্যেক প্রশ্নের জন্য আপনি যেমন বোধ করেছিলেন তার সবচেয়ে কাছাকাছি একটি উত্তর দিবেন। গত ৪ সপ্তাহে কতটুকু সময়ের জন্য

	সবসময়	প্রায় সময়	বেশকিছু সময়	কিছু সময়	সামান্য সময়	কোন সময়ই না
৯(ক) আপনি উৎফুল্ল, হাসিখুশি বোধ করছিলেন?	☐	☐	☐	☐	☐	☐
৯(খ) আপনি নার্ভাস ব্যক্তি ছিলেন?	☐	☐	☐	☐	☐	☐
৯(গ) আপনি এত দুঃখ বোধ করেছিলেন যে, কোন কিছুই আনন্দ দিতে পারে নাই?	☐	☐	☐	☐	☐	☐
৯(ঘ) আপনি ধীর স্থির ও শান্তিপূর্ণ বোধ করেছিলেন?	☐	☐	☐	☐	☐	☐
৯(ঙ) আপনার প্রচুর কর্মশক্তি ছিল?	☐	☐	☐	☐	☐	☐
৯(চ) আপনি মনমরা ও হতাশা বোধ করেছিলেন?	☐	☐	☐	☐	☐	☐
৯(ছ) আপনি পরিশ্রমের পর খুবই ক্লান্ত বোধ করেছিলেন?	☐	☐	☐	☐	☐	☐
৯(জ) আপনি সুখী ব্যক্তি ছিলেন?	☐	☐	☐	☐	☐	☐
৯(ঝ) আপনি ক্লান্ত বোধ করেছিলেন?	☐	☐	☐	☐	☐	☐

১০। শারীরিক বা আবেগজনিত সমস্যা গত ৪ সপ্তাহে আপনার সামাজিক কর্মকাণ্ডে (যেমন বন্ধু ও আত্মীয়দের সাথে দেখা করা) কতটা সময় ব্যাঘাত ঘটিয়েছিল?

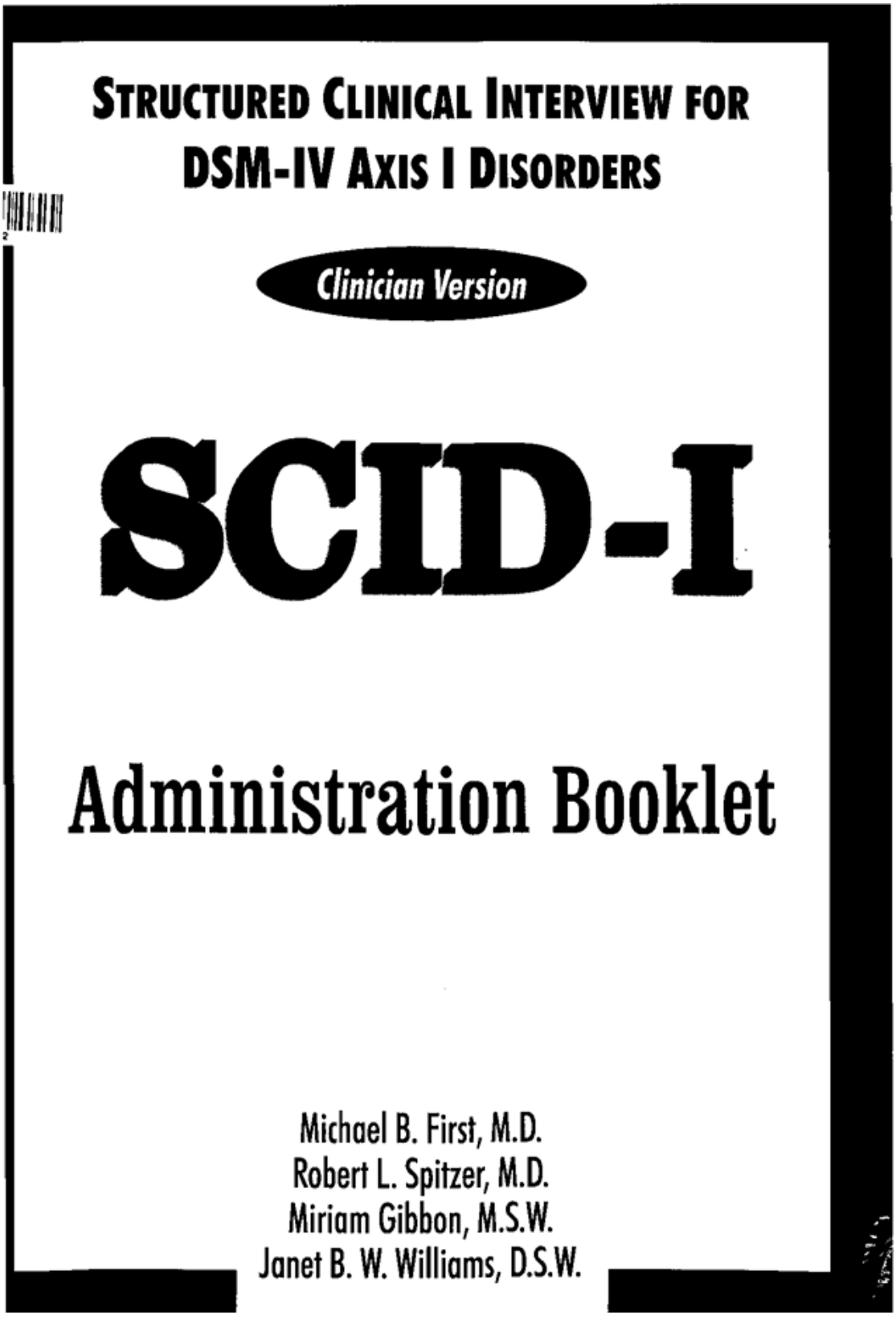
☐ ১। সব সময়
☐ ২। প্রায় সব সময়
☐ ৩। কিছু সময়
☐ ৪। অতি সামান্য সময়
☐ ৫। কোন সময়ই না

১১। নীচের উক্তিগুলোর প্রতিটি আপনার বেলায় কতটুকু সত্য বা মিথ্যা?

	অবশ্যই সত্য	বেশির ভাগ সত্য	জানিনা	বেশির ভাগ মিথ্যা	অবশ্যই মিথ্যা
১১(ক) আমার মনে হয় অন্যের তুলনায় একটু সহজেই অসুস্থ হয়ে যাই	☐	☐	☐	☐	☐
১১(খ) আমি যাদের জানি আমি তাদের মতই সুস্থ	☐	☐	☐	☐	☐
১১(গ) ধারনা করি আমার স্বাস্থ্য খারাপ হবে	☐	☐	☐	☐	☐
১১(ঘ) আমার স্বাস্থ্য চমৎকার	☐	☐	☐	☐	☐

APPENDIX E

Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I): Clinician Version



STRUCTURED CLINICAL INTERVIEW FOR DSM-IV AXIS I DISORDERS

SCID-I

CLINICIAN VERSION

ADMINISTRATION BOOKLET

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Note: The authors have worked to ensure that all information in this book is accurate at the time of publication and consistent with general psychiatric and medical standards. As medical research and practice continue to advance, however, therapeutic standards may change. Moreover, specific situations may require a specific therapeutic response not included in this book. For these reasons, and because human and mechanical errors sometimes occur, we recommend that readers follow the advice of physicians and therapists directly involved in their care or the care of a member of their family.

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Available From American Psychiatric Press:

Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I)—Clinician Version,

- User's Guide (order #8931)

  The User's Guide contains detailed instructions for administering the SCID, guiding you through the interview process and demonstrating how to make accurate DSM-IV diagnoses.

- Administration Booklet (order #8932)

  The spiral-bound, reusable Administration Booklet contains the interview questions and the DSM-IV diagnostic criteria.

- Packet of five Scoresheets (order #8933)

  One-time-use Scoresheets contain the abridged DSM-IV diagnostic criteria and provide space for recording diagnostic decisions and descriptive information.

- Administration Booklet + packet of five Scoresheets (order #8934)
- User's Guide + Administration Booklet + packet of five Scoresheets (order #8935)

The **Research Version** of the SCID is available from the Biometrics Research Department at New York State Psychiatric Institute, Unit 74, 722 West 168th Street, New York, NY 10032; (212) 960-5524. Refer to the SCID User's Guide for a discussion of the differences between the Research Version and Clinician Version of the SCID.

OVERVIEW

I'm going to be asking you about problems or difficulties you may have had, and I'll be making some notes as we go along. Do you have any questions before we begin?

(ADMINISTER OVERVIEW QUESTIONS ON SCORESHEET.)

A. MOOD EPISODES

MAJOR DEPRESSIVE EPISODE

Now I am going to ask you some more questions about your mood.

CRITERIA FOR MAJOR DEPRESSIVE EPISODE

NOTE: Criterion B (i.e., does not meet criteria for a Mixed Episode) has been omitted from the SCID.

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure

A1 In the past month. . .

. . .has there been a period of time when you were feeling depressed or down most of the day, nearly every day? (What was that like?)

IF YES: How long did it last? (As long as 2 weeks?)

(1) depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). **Note:** In children and adolescents, can be irritable mood. **A1**

A2 . . .what about losing interest or pleasure in things you usually enjoyed?

IF YES: Was it nearly every day? How long did it last? (As long as 2 weeks?)

(2) markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others) **A2**

If **neither A1 nor A2** is "+" during the current month, check for past Major Depressive Episode by asking questions A1 and A2 again looking for lifetime episodes, beginning with "Has there EVER. . ."

IF AT LEAST ONE PAST DEPRESSED PERIOD: Have you had more than one time like that? Which one was the worst?

If **neither A1 nor A2** has ever been "+," go to **A16**, page 8 *(Manic Episode).*

FOR THE FOLLOWING QUESTIONS, FOCUS ON THE WORST 2-WEEK PERIOD:

During [2-WEEK PERIOD]...

A3	...did you lose or gain any weight? (How much? Were you trying to lose weight?) IF NO: How was your appetite? (What about compared with your usual appetite? Did you have to force yourself to eat? Eat [less/more] than usual? Was that nearly every day?)	(3) significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. **Note:** In children, consider failure to make expected weight gains.	A3
A4	...how were you sleeping? (Trouble falling asleep, waking frequently, trouble staying asleep, waking too early, OR sleeping too much? How many hours a night compared with usual? Was that nearly every night?)	(4) insomnia or hypersomnia nearly every day	A4
A5	...were you so fidgety or restless that you were unable to sit still? (Was it so bad that other people noticed it? What did they notice? Was that nearly every day?) IF NO: What about the opposite—talking or moving more slowly than is normal for you? (Was it so bad that other people noticed it? What did they notice? Was that nearly every day?)	(5) psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down) *NOTE:* ALSO CONSIDER BEHAVIOR DURING THE INTERVIEW	A5
A6	...what was your energy like? (Tired all the time? Nearly every day?)	(6) fatigue or loss of energy nearly every day	A6

A7	. . .how did you feel about yourself? (Worthless? Nearly every day?) IF NO: What about feeling guilty about things you had done or not done? (Nearly every day?)	(7) feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick) *NOTE:* CODE "–" IF ONLY LOW SELF-ESTEEM	**A7**
A8	. . .did you have trouble thinking or concentrating? (What kinds of things did it interfere with? Nearly every day?) IF NO: Was it hard to make decisions about everyday things?	(8) diminished ability to think or concentrate, or indecisiveness, nearly every day (either by objective account or as observed by others)	**A8**
A9	. . .were things so bad that you were thinking a lot about death or that you would be better off dead? What about thinking of hurting yourself? IF YES: Did you do anything to hurt yourself?	(9) recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide	**A9**
A10		**AT LEAST FIVE OF A(1)–A(9) ARE "+" AND AT LEAST ONE OF THESE IS ITEM A(1) OR A(2).**	**A10**

If **A10** above is "—" (i.e., fewer than five are "+"), ask the following if unknown:

Have there been any <u>other</u> times when you've been depressed and had even more of the symptoms that we've just talked about?

If "yes," go back to **A1**, page 3, and ask about that episode.
If "no," go to **A16**, page 8 (*Manic Episode*).

A11 IF UNCLEAR: Has [the depression/OWN WORDS] made it hard for you to do your work, take care of things at home, or get along with other people?

C. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. **A11**

If **A11** above is "–" (i.e., symptoms not clinically significant), ask the following if unknown:

Have there been any <u>other</u> times when you've been depressed and it had more of an effect on your life?

If "yes," go back to **A1**, page 3, and ask about that episode.
If "no," go to **A16**, page 8 (*Manic Episode*).

A12 Just before this began, were you physically ill?

Just before this began, were you taking any medications?

IF YES: Any change in the amount you were taking?

Just before this began, were you drinking or using any street drugs?

If there is any indication that the depression may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 20 and return here to make a rating of "–" or "+."

D. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, medication) or a general medical condition. **A12**

<u>Etiological general medical conditions include</u> degenerative neurological illnesses (e.g., Parkinson's disease), cerebrovascular disease (e.g., stroke), metabolic conditions (e.g., vitamin B_{12} deficiency), endocrine conditions (e.g., hyper- and hypothyroidism, hyper- and hypoadrenocorticism), viral or other infections (e.g., hepatitis, mononucleosis, HIV), and certain cancers (e.g., carcinoma of the pancreas).

<u>Etiological substances include</u> alcohol, amphetamines, cocaine, hallucinogens, inhalants, opioids, phencyclidine, sedatives, hypnotics, anxiolytics. Medications include antihypertensives, oral contraceptives, corticosteroids, anabolic steroids, anticancer agents, analgesics, anticholinergics, cardiac medications.

If **A12** above is "–" (i.e., mood <u>is</u> due to substance or general medical condition), ask the following:

Have there been any <u>other</u> times when you've been depressed and it was not because of [GENERAL MEDICAL CONDITION/SUBSTANCE USE]?

If "yes," go back to **A1**, page 3, and ask about that episode.
If "no," go to **A16**, page 8 (*Manic Episode*).

A13 IF UNKNOWN: Did this begin soon after someone close to you died?

E. The symptoms are not better accounted for by Bereavement, i.e., after the loss [death] of a loved one, the symptoms persist for longer than 2 months or are characterized by marked functional impairment, morbid preoccupation with worthlessness, suicidal ideation, psychotic symptoms, or psychomotor retardation. **A13**

If **A13** above is "–" (i.e., the depressed mood is better accounted for by Bereavement), ask the following:

Have there been any other times when you've been depressed and it was not because of the loss of a loved one?

If "yes," go back to **A1**, page 3, and ask about that episode.
If "no," go to **A16**, page 8 (*Manic Episode*).

A14 IF UNKNOWN: Have you had (SYMPTOMS RATED "+" ABOVE) in the past month?

CRITERIA A, C, D, AND E ARE "+" **A14**

(MAKE A DIAGNOSIS OF MAJOR DEPRESSIVE EPISODE)

A15 How many separate times have you been [depressed/OWN WORDS] nearly every day for at least 2 weeks and had several of the symptoms that you just described, such as [SYMPTOMS OF WORST EPISODE]?

Total number of Major Depressive Episodes, including current (CODE 99 if too numerous or indistinct to count) **A15**

MANIC EPISODE

CRITERIA FOR MANIC EPISODE

NOTE: Criterion C (i.e., does not meet criteria for a Mixed Episode) has been omitted from the SCID.

A16 Have you ever had a period of time when you were feeling so good, high, excited, or hyper that other people thought you were not your normal self or you got into trouble? (Did anyone say you were manic? Was that more than just feeling good?)

What was that like?

IF NO: What about a period of time when you were so irritable that you found yourself shouting at people or starting fights or arguments? (Did you find yourself yelling at people you didn't really know?)

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood. . . **A16**

If **A16** is "–" (i.e., never any periods of elevated or irritable mood), go to **A45**, page 17 (*Dysthymic Disorder*).

A17 How long did that last? (As long as 1 week? Did you have to go into the hospital?)

. . . lasting at least 1 week (or any duration if hospitalization is necessary) **A17**

If **A17** is "–" (i.e., duration is less than 1 week), go to **A30**, page 13 (*Hypomanic Episode*).

Have you had more than one time such as that? Which time were you the most [high/irritable/OWN WORDS?]

FOR ITEMS **A18–A27** ON PAGES 9–11, FOCUS ON THE MOST EXTREME EPISODE

IF UNKNOWN: During this time, when were you the most [OWN WORDS for euphoria or irritability]?

During [PERIOD OF WORST MANIC SYMPTOMS]...

B. During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:

A18	...how did you feel about yourself? (More self-confident than usual? Any special powers or abilities?)	(1) inflated self-esteem or grandiosity	A18
A19	...did you need less sleep than usual? IF YES: Did you still feel rested?	(2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep)	A19
A20	...were you much more talkative than usual? (Did people have trouble stopping you or understanding you? Did people have trouble getting a word in edgewise?)	(3) more talkative than usual or pressure to keep talking	A20
A21	...were your thoughts racing through your head?	(4) flight of ideas or subjective experience that thoughts are racing	A21
A22	...were you so easily distracted by things around you that you had trouble concentrating or staying on one track?	(5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli)	A22
A23	...how did you spend your time? (Work, friends, hobbies? Were you so active that your friends or family were concerned about you?) IF NO INCREASED ACTIVITY: Were you physically restless? (How bad was it?)	(6) increase in goal-directed activity (socially, at work or school, or sexually) or psychomotor agitation	A23

A24 ...did you do anything that could have caused trouble for you or your family? (Buying things you didn't need? Anything sexual that was unusual for you? Reckless driving?)

(7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments) **A24**

A25

AT LEAST THREE OF B(1)–B(7) ARE "+" (OR FOUR IF MOOD IS IRRITABLE AND NOT ELEVATED) **A25**

If **A25** above is "–" (i.e., fewer than three are "+") ask the following:

Have there been any other times when you were [high/irritable/OWN WORDS] and had even more of the symptoms that we've just talked about?

If "yes," go back to **A16**, page 8, and ask about that episode.
If "no," go to **A45**, page 17 *(Dysthymic Disorder)*.

A26 IF NOT KNOWN: At that time, did you have serious problems at home or at work (school) because you were [SYMPTOMS] or did you have to go into a hospital?

D. The mood disturbance is sufficiently severe to cause marked impairment in occupational functioning or in usual social activities or relationships with others, or to necessitate hospitalization to prevent harm to self or others, or there are psychotic features. **A26**

If **A26** above is "–" (i.e., not sufficiently severe) ask the following:

Have there been any other times when you were [high/irritable/OWN WORDS] and you got into trouble with people or were hospitalized?

If "yes," go back to **A16**, page 8, and ask about that episode.
If "no," go to **A39**, page 14 *(Criterion C for Hypomanic Episode)*.

A27 Just before this began, were you physically ill?

Just before this began, were you taking any medications?

IF YES: Any change in the amount you were taking?

Just before this began, were you drinking or using any street drugs?

If there is any indication that the mania may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 20 and return here to make a rating of "–" or "+."

E. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. **A27**

Note: Manic-like episodes that are clearly caused by somatic antidepressant treatment (e.g., medication, electroconvulsive therapy, light therapy) should not count toward a diagnosis of Bipolar I Disorder but are considered Substance-Induced Mood Disorders.

Etiological general medical conditions include degenerative neurological illnesses (e.g., Huntington's disease, multiple sclerosis), cerebrovascular disease (e.g., stroke), metabolic conditions (e.g., vitamin B_{12} deficiency, Wilson's disease), endocrine conditions (e.g., hyperthyroidism), viral or other infections, and certain cancers (e.g., cerebral neoplasms).

Etiological substances include alcohol, amphetamines, cocaine, hallucinogens, inhalants, opioids, phencyclidine, sedatives, hypnotics, and anxiolytics. Medications include psychotropic medications (e.g., antidepressants), corticosteroids, anabolic steroids, isoniazid, antiparkinson medication (e.g., levodopa), and sympathomimetics/ decongestants.

If **A27** above is "–" (i.e., the mania is due to a substance or general medical condition), ask the following:

Have there been any other times when you were [high/irritable/OWN WORDS] and you were not [physically ill/taking medication/using SUBSTANCE]?

If "yes," go back to **A16**, page 8, and ask about that episode.
If "no," go to **A45**, page 17 *(Dysthymic Disorder)*.

A28	IF UNKNOWN: Have you had [SYMPTOMS RATED "+" ABOVE] in the past month?	**CRITERIA A, C, D, AND E ARE "+"** (MAKE A DIAGNOSIS OF MANIC EPISODE)	A28
A29	How many separate times were you [HIGH/OWN WORDS] and had [ACKNOWLEDGED MANIC SYMPTOMS] for at least a week (or were hospitalized)?	Total number of Manic Episodes, including current (CODE 99 if too indistinct or numerous to count)	A29

YOU ARE FINISHED EVALUATING MOOD EPISODES. GO TO MODULE B (PSYCHOTIC AND ASSOCIATED SYMPTOMS), **B1** (PAGE 25).

HYPOMANIC EPISODE

CRITERIA FOR HYPOMANIC EPISODE

A30 IF UNKNOWN: When you were [high/irritable/OWN WORDS], did it last for at least 4 days?

Have you had more than one time like that? (Which time were you the most [high/irritable/OWN WORDS]?)

FOR ITEMS **A31–A37** ON PAGES 13 AND 14, FOCUS ON THE MOST EXTREME EPISODE

A. A distinct period of persistently elevated, expansive, or irritable mood, lasting throughout at least 4 days, that is clearly different from the usual nondepressed mood. **A30**

If **A30** is "–" (i.e., never any periods of elevated or irritable mood lasting at least 4 days), go to **A45**, page 17 (*Dysthymic Disorder*).

During [PERIOD OF MOST EXTREME HYPOMANIC SYMPTOMS]...

B. During the period of mood disturbance, three (or more) of the following symptoms have persisted (four if the mood is only irritable) and have been present to a significant degree:

A31 ...how did you feel about yourself?

(More self-confident than usual? Any special powers or abilities?)

(1) inflated self-esteem or grandiosity **A31**

A32 ...did you need less sleep than usual?

IF YES: Did you still feel rested?

(2) decreased need for sleep (e.g., feels rested after only 3 hours of sleep) **A32**

A33 ...were you much more talkative than usual? (Did people have trouble stopping you or understanding you? Did people have trouble getting a word in edgewise?)

(3) more talkative than usual or pressure to keep talking **A33**

A34 ...were your thoughts racing through your head?

(4) flight of ideas or subjective experience that thoughts are racing **A34**

A35 ...were you so easily distracted by things around you that you had trouble concentrating or staying on one track?

(5) distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli) **A35**

A36	...how did you spend your time? (Work, friends, hobbies? Were you so active that your friends or family were concerned about you?) IF NO INCREASED ACTIVITY: Were you physically restless? (How bad was it?)	(6) increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation	A36
A37	...did you do anything that could have caused trouble for you or your family? (Buying things you didn't need? Anything sexual that was unusual for you? Reckless driving?)	(7) excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments)	A37
A38		**AT LEAST THREE OF B(1)–B(7) ARE "+" (OR FOUR IF MOOD IS IRRITABLE AND NOT ELEVATED)**	A38

If **A38** is "–" (i.e., fewer than three are "+"), ask the following:

Have there been any <u>other</u> times when you were [high/irritable/OWN WORDS] and had even more of the symptoms that we've just talked about?

If "yes," go back to **A30**, page 13, and ask about that episode.
If "no," go to **A45,** page 17 (*Dysthymic Disorder*).

A39	IF UNKNOWN: Is this very different from the way you usually are? (How were you different? At work? With friends?)	C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the person when not symptomatic.	A39

If **A39** is "–" (i.e., characteristically "hypomanic"), ask the following:

Have there been any <u>other</u> times when you were [high/irritable/OWN WORDS] and you were really different from the way you usually are?

If "yes," go back to **A30**, page 13, and ask about that episode.
If "no," go to **A45**, page 17 (*Dysthymic Disorder*).

A40 IF UNKNOWN: Did other people notice the change in you? (What did they say?)

D. The disturbance in mood and the change in functioning are observable by others. **A40**

If **A40** is "–" (i.e., not observable by others), ask the following:

Have there been any other times when you were [high/irritable/OWN WORDS] and other people did notice the change in the way you were acting?

If "yes," go back to **A30**, page 13, and ask about that episode.
If "no," go to **A45**, page 17 (*Dysthymic Disorder*).

A41 IF UNKNOWN: At that time, did you have serious problems at home or at work (school) because you were [SYMPTOMS] or did you have to go into a hospital?

E. The episode is not severe enough to cause marked impairment in social or occupational functioning, or to necessitate hospitalization, and there are no psychotic features. **A41**

If **A41** is "–" (i.e., severe enough to cause marked impairment), go back to **A26**, page 10, code "+" for that item, and continue with **A27**, page 11.

A42 Just before this began, were you physically ill?

Just before this began, were you taking any medications?

IF YES: Any change in the amount you were taking?

Just before this began, were you drinking or using any street drugs?

If there is any indication that the hypomania may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 20 and return here to make a rating of "–" or "+."

F. The symptoms are not due to the direct physiological effects of a substance (i.e., a drug of abuse, a medication) or a general medical condition. **A42**

Note: Hypomanic-like episodes that are clearly caused by somatic antidepressant treatment (e.g., medication, electroconvulsive therapy, light therapy) should not count toward a diagnosis of Bipolar II Disorder but are considered Substance-Induced Mood Episodes.

Refer to list of possibly etiological general medical conditions and substances included with item ***A27*** *(page 11).*

If **A42** above is "–" (i.e., the hypomania is due to a substance or general medical condition), ask the following:

Have there been any other times when you were [high/irritable/OWN WORDS] and you were not [physically ill/taking medication/using SUBSTANCE]?

If "yes," go back to **A30**, page 13, and ask about that episode.
If "no," go to **A45**, page 17 *(Dysthymic Disorder)*.

A43	IF UNKNOWN: Have you had [SYMPTOMS RATED "+" ABOVE] in the past month?	**CRITERIA A, B, C, D, E, AND F ARE "+"** (MAKE A DIAGNOSIS OF HYPOMANIC EPISODE)	A
A44	How many separate times were you [high/irritable/OWN WORDS] and had [ACKNOWLEDGED HYPOMANIC SYMPTOMS] for a period of time?	Total number of Hypomanic Episodes (CODE 99 if too indistinct or numerous to count)	A

YOU ARE FINISHED EVALUATING MOOD EPISODES. GO TO MODULE B (PSYCHOTIC AND ASSOCIATED SYMPTOMS), **B1** (PAGE 25).

DYSTHYMIC DISORDER

NOTE: For presentations in which there is a history of multiple recurrent Major Depressive Episodes, the clinician may wish to skip the evaluation of Dysthymic Disorder (i.e., go to **B1**, page 25).

CRITERIA FOR DYSTHYMIC DISORDER

A45 For the past couple of years, have you been bothered by depressed mood, most of the day, more days than not?

(more than half the time?)

IF YES: What was that like?

A. Depressed mood for most of the day, for more days than not, as indicated either by subjective account or observation by others, for at least 2 years. **Note:** In children and adolescents, mood can be irritable and duration must be at least 1 year. **A45**

If **A45** is "–" (i.e., no chronic depressed mood...), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

During these periods of [OWN WORDS FOR CHRONIC DEPRESSION], do you find that most of the time you...

B. Presence, while depressed, of two (or more) of the following:

A46	...lose your appetite? (What about overeating?)	(1) poor appetite or overeating	**A46**
A47	...have trouble sleeping or sleep too much?	(2) insomnia or hypersomnia	**A47**
A48	...have little energy to do things or feel tired a lot?	(3) low energy or fatigue	**A48**
A49	...feel down on yourself? (Feel worthless, or a failure?)	(4) low self-esteem	**A49**
A50	...have trouble concentrating or making decisions?	(5) poor concentration or difficulty making decisions	**A50**
A51	...feel hopeless?	(6) feelings of hopelessness	**A51**
A52		**AT LEAST TWO "B" SYMPTOMS ARE "+"**	**A52**

If **A52** is "–" (i.e., fewer than two symptoms are "+"), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A53 What is the longest time, during this period of long-lasting depression, that you felt OK? (NO DYSTHYMIC SYMPTOMS)

C. During the 2-year period (1 year for children or adolescents) of the disturbance, the person has never been without the symptoms in criteria A and B for more than 2 months at a time. **A53**

If **A53** is "–" (i.e., more than 2 months without symptoms), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A54 How long have you been feeling this way? (When did this begin?)

Age at onset of current Dysthymic Disorder (CODE 99 IF UNKNOWN) **A54**

A55 IF UNKNOWN: Did it begin gradually or did it start with a bad period of depression?

D. No Major Depressive Episode during the first 2 years of the disturbance (1 year for children and adolescents); i.e., not better accounted for by chronic Major Depressive Disorder, or Major Depressive Disorder, In Partial Remission **A55**

Note: There may have been a previous Major Depressive Episode provided there was a full remission (no significant signs or symptoms for 2 months) before development of the Dysthymic Disorder. In addition, after the initial 2 years (1 year in children or adolescents) of Dysthymic Disorder, there may be superimposed episodes of Major Depressive Disorder, in which case both diagnoses may be given when the criteria are met for a Major Depressive Episode.

If **A55** is "–" (i.e., Major Depressive Episode during first 2 years), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A56

E. There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode, and criteria have never been met for Cyclothymic Disorder. **A56**

If **A56** is "–" (i.e., past Manic, Mixed, or Hypomanic Episode or criteria met for Cyclothymic Disorder), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A57 THIS MAY NEED TO BE DEFERRED UNTIL AFTER PSYCHOTIC DISORDERS HAVE BEEN RULED OUT.

F. Does not occur exclusively during the course of a chronic Psychotic Disorder, such as Schizophrenia or Delusional Disorder. **A57**

If **A57** is "–" (i.e., occurs during Psychotic Disorder), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A58 Just before this began, were you physically ill?

Just before this began, were you taking any medications?

IF YES: Any change in the amount you were taking?

Just before this began, were you drinking or using any street drugs?

If there is any indication that the dysthymia may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 20 and return here to make a rating of "–" or "+."

G. The symptoms are not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. **A58**

Etiological general medical conditions include degenerative neurological illnesses (e.g., Parkinson's disease), cerebrovascular disease (e.g., stroke), metabolic conditions (e.g., vitamin B_{12} deficiency), endocrine conditions (e.g., hyper- and hypothyroidism, hyper- and hypoadrenocorticism), viral or other infections (e.g., hepatitis, mononucleosis, HIV), and certain cancers (e.g., carcinoma of the pancreas).

Etiological substances include alcohol, amphetamines, cocaine, hallucinogens, inhalants, opioids, phencyclidine, sedatives, hypnotics, anxiolytics. Medications include antihypertensives, oral contraceptives, corticosteroids, anabolic steroids, anticancer agents, analgesics, anticholinergics, and cardiac medications.

If **A58** is "–" (i.e., due to a chronic general medical condition or chronic substance use), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A59 IF UNCLEAR: How much do [SYMPTOMS IN A AND B] interfere with your life?

H. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. **A59**

If **A59** is "–" (i.e., not clinically significant), go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

A60

CRITERIA A, B, C, D, E, F, G, AND H ARE "+" **A60**

(MAKE A DIAGNOSIS OF 300.4 DYSTHYMIC DISORDER)

Go to **B1**, page 25 *(Psychotic and Associated Symptoms)*.

CONSIDER ETIOLOGICAL ROLE OF A GENERAL MEDICAL CONDITION OR SUBSTANCE USE

If mood symptoms are not temporally associated with a general medical condition, go to **A65**, page 22 (*Substance-Induced Mood Disorder*).

MOOD DISORDER DUE TO A GENERAL MEDICAL CONDITION

CRITERIA FOR MOOD DISORDER DUE TO A GENERAL MEDICAL CONDITION

NOTE: Criterion D (i.e., not during delirium) has been omitted from the SCID.

A61 CODE BASED ON INFORMATION ALREADY OBTAINED

A. A prominent and persistent disturbance in mood predominant in the clinical picture and by either (or both) of the following: **A61**

(1) depressed mood or markedly diminished interest or pleasure in all, or almost all, activities

(2) elevated, expansive, or irritable mood

A62 Do you think your [MOOD SYMPTOMS] were in any way related to your [COMORBID GENERAL MEDICAL CONDITION]?

IF YES: Tell me how.

(Did the [MOOD SYMPTOMS] start or get much worse only after [COMORBID GENERAL MEDICAL CONDITION] began?)

IF YES AND GENERAL MEDICAL CONDITION HAS RESOLVED: Did the [MOOD SYMPTOMS] get better once the [COMORBID GENERAL MEDICAL CONDITION] got better?

B/C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition, and the disturbance is not better accounted for by another mental disorder (e.g., Adjustment Disorder With Depressed Mood in response to the stress of having a general medical condition). **A62**

If **A62** is "–" (general medical condition not etiological), go to **A65**, page 22 (*Substance-Induced Mood Disorder*).

A63 IF UNCLEAR: How much did [MOOD SYMPTOMS] interfere with your life?

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. **A63**

A64 IF UNKNOWN: Have you had [SYMPTOMS RATED "+" ABOVE] in the past month?

CRITERIA A, B/C, AND E ARE "+" **A64**

(MAKE A DIAGNOSIS OF 293.83 MOOD DISORDER DUE TO A GENERAL MEDICAL CONDITION)

If mood symptoms are <u>not</u> temporally associated with substance use, return to episode being evaluated:

A12 for Major Depressive Episode (page 6)
A27 for Manic Episode (page 11)
A42 for Hypomanic Episode (page 15)
A58 for Dysthymic Disorder (page 19)
D11 for Other Bipolar Disorders (page 49)
D18 for Depressive Disorder NOS (page 52)

SUBSTANCE-INDUCED MOOD DISORDER

CRITERIA FOR SUBSTANCE-INDUCED MOOD DISORDER

NOTE: Criterion D (i.e., not due to delirium) has been omitted from the SCID.

A65 CODE BASED ON INFORMATION ALREADY OBTAINED

A. A prominent and persistent disturbance in mood predominant in the clinical picture and characterized by either (or both) of the following: **A65**

(1) depressed or markedly diminished interest or pleasure in all, or almost all, activities

(2) elevated, expansive, or irritable mood

A66 IF UNKNOWN: When did the [MOOD SYMPTOMS] begin? Were you already using [SUBSTANCE] or had you just stopped or cut down your use?

B. There is evidence from the history, physical examination, or laboratory findings of either (1) or (2) **A66**

(1) the symptoms in criterion A developed during, or within a month of, Substance Intoxication or Withdrawal

(2) medication use is etiologically related to the disturbance

If **A66** is "–" (i.e., not etiologically related to a substance), then return to episode being evaluated:

A12 for Major Depressive Episode (page 6)
A27 for Manic Episode (page 11)
A42 for Hypomanic Episode (page 15)
A58 for Dysthymic Disorder (page 19)
D11 for Other Bipolar Disorders (page 49)
D18 for Depressive Disorder NOS (page 52)

A67 Do you think your [MOOD SYMPTOMS] are in any way related to your [SUBSTANCE USE]?

IF YES: Tell me how.

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NONSUBSTANCE ETIOLOGY

C. The disturbance is not better accounted for by a Mood Disorder that is not substance induced. Evidence that the symptoms are better accounted for by a Mood Disorder that is not substance induced might include: **A67**

A67 (cont'd) IF UNKNOWN: Which came first, the [SUBSTANCE USE] or the [MOOD SYMPTOMS]?

IF UNKNOWN: Have you had a period of time when you stopped using [SUBSTANCE]?

IF YES: After you stopped using [SUBSTANCE] did the [MOOD SYMPTOMS] get better?

IF UNKNOWN: How much of [SUBSTANCE] were you using when you began to have [MOOD SYMPTOMS]?

IF UNKNOWN: Have you had any other episodes of [MOOD SYMPTOMS]?

IF YES: How many? Were you using [SUBSTANCE] at those times?

(1) the mood symptoms precede the onset of the substance use (or medication use) **A67** (cont'd)

(2) the mood symptoms persist for a substantial period of time (e.g., about a month) after the cessation of acute withdrawal or severe intoxication

(3) the mood symptoms are substantially in excess of what would be expected given the type or amount of the substance used or the duration of use

(4) there is other evidence that suggests the existence of an independent non-substance-induced Mood Disorder (e.g., a history of recurrent non-substance-related Major Depressive Episodes)

If **A67** is "–" (i.e., the disturbance is better accounted for by a non-substance-induced Mood Disorder), then return to episode being evaluated:

A12 for Major Depressive Episode (page 6)
A27 for Manic Episode (page 11)
A42 for Hypomanic Episode (page 15)
A58 for Dysthymic Disorder (page 19)
D11 for Other Bipolar Disorders (page 49)
D18 for Depressive Disorder NOS (page 52)

A68 IF UNKNOWN: How much did [MOOD SYMPTOMS] interfere with your life?

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. **A68**

A69 IF UNKNOWN: Have you had [SYMPTOMS RATED "+" ABOVE] in the past month?

CRITERIA A, B, C, AND E ARE "+" **A69**

(MAKE A DIAGNOSIS OF SUBSTANCE-INDUCED MOOD DISORDER)

Return to episode being evaluated:

A12 for Major Depressive Episode (page 6)
A27 for Manic Episode (page 11)
A42 for Hypomanic Episode (page 15)
A58 for Dysthymic Disorder (page 19)
D11 for Other Bipolar Disorders (page 49)
D18 for Depressive Disorder NOS (page 52)

B. PSYCHOTIC AND ASSOCIATED SYMPTOMS

FOR EACH PSYCHOTIC SYMPTOM, DESCRIBE ON THE SCORESHEET THE ACTUAL CONTENT AND INDICATE THE PERIOD OF TIME DURING WHICH THE SYMPTOM WAS PRESENT.

Now I am going to ask you about unusual experiences that people sometimes have.

DELUSIONS

False personal beliefs based on incorrect inference about external reality and firmly sustained in spite of what almost everyone else believes and in spite of what constitutes incontrovertible and obvious proof or evidence to the contrary. The belief is not one ordinarily accepted by other members of the person's culture or subculture. Do not consider as delusions unreasonable and sustained beliefs that are maintained with less than delusional intensity ("overvalued ideas").

B1 Has it ever seemed like people were talking about you or taking special notice of you?

IF YES: Were you convinced they were talking about you, or did you think it might have been your imagination?

Delusion of reference; i.e., events, objects, or other people in the individual's environment have a particular or unusual significance that is clearly unwarranted. **B1**

B2 What about anyone going out of his or her way to give you a hard time, or trying to hurt you?

Persecutory delusion; i.e., the individual (or his or her group) is being attacked, cheated, persecuted, or conspired against. **B2**

B3	Did you ever feel that you were especially important in some way, or that you had special powers to do things that other people couldn't do?	Grandiose delusion; i.e., content involves exaggerated power, knowledge, or importance, or a special relationship to a deity or famous person.	B3
B4	Did you ever feel that something was very wrong with you physically even though your doctor said nothing was wrong . . . like you had cancer or some other terrible disease? Have you ever been convinced that something was very wrong with the way a part or parts of your body looked? (Did you ever feel that something strange was happening to parts of your body?)	Somatic delusion; i.e., content involves change or disturbance in body appearance or functioning.	B4
B5	(Did you ever have any unusual religious experiences?) (Did you ever feel that you had committed a crime or done something terrible for which you should be punished?) (Did you ever feel that someone or something outside yourself was controlling your thoughts or actions against your will?) (Did you ever believe that someone could read your mind?) (Did you ever feel that certain thoughts that were not your own were put into your head? What about taken out of your head?)	Other delusions; i.e., religious, jealous, erotomanic, delusions of guilt, delusions of being controlled, thought broadcasting, thought insertion, thought withdrawal.	B5

HALLUCINATIONS

A sensory perception that has the compelling sense of reality of a true perception but occurs without external stimulation of the relevant sensory organ.

B6 Did you hear things that other people couldn't hear, such as noises, or the voices of people whispering or talking?

IF YES: What did you hear? How often did you hear it?

Auditory hallucinations when fully awake, heard either inside or outside the head. **B6**

B7 Did you ever have visions or see things that other people couldn't see? (Were you awake at the time?)

Visual hallucinations. **B7**

B8 What about strange sensations in your body or on your skin?

Tactile hallucinations, e.g., electricity. **B8**

B9 What about smelling or tasting things that other people couldn't smell or taste?

Other hallucinations, e.g., gustatory, olfactory. **B9**

THE REMAINDER OF THE ITEMS IN THIS SECTION ARE OBSERVATIONAL OR BY HISTORY

Let me stop for a minute while I make a few notes.

B10

Catatonic behaviors; e.g., catalepsy, stupor, catatonic agitation, negativism, mutism, posturing, stereotyped movements, echolalia, echopraxia. **B10**

B11		Grossly disorganized behavior; e.g., markedly disheveled appearance, grossly inappropriate sexual behavior, unpredictable or untriggered agitation.	B11
B12		Grossly inappropriate affect; e.g., smiling while discussing being persecuted.	B12
B13		Disorganized speech; e.g., frequent derailment (loosening of associations) or incoherence.	B13
B14		Negative symptoms; i.e., affective flattening, alogia, avolition.	B14
B15	IF DELUSIONS OR HALLUCINATIONS HAVE EVER BEEN PRESENT, FILL OUT CHRONOLOGY SECTION.		B15

C. DIFFERENTIAL DIAGNOSIS OF PSYCHOTIC DISORDERS

If no psychotic items from Module B have ever been present, go to **Module D**, page 45 *(Mood Disorders)*.

C1

Psychotic symptoms occur at times other than during Major Depressive, Manic, and Mixed Episodes.

The following question may be asked for clarification: IF A MAJOR DEPRESSIVE, MANIC, OR MIXED EPISODE HAS EVER BEEN PRESENT: Has there ever been a time when you had [PSYCHOTIC SYMPTOMS] and you were not [DEPRESSED/MANIC]?

C1

yes

no → Psychotic Mood— Go to **Module D**, page 45

CRITERIA FOR SCHIZOPHRENIA

NOTE: Criteria for Schizophrenia are presented in a different order than in DSM-IV.

C2

A. Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):

(1) delusions

(2) hallucinations

(3) disorganized speech (e.g., frequent derailment or incoherence)

(4) grossly disorganized or catatonic behavior

(5) negative symptoms i.e., affective flattening, alogia, or avolition

[**Note:** Only one criterion A symptom is required if delusions are bizarre or hallucinations consist of a voice keeping up a running commentary on the person's behavior or thoughts, or two or more voices conversing with each other.]

C2

yes

no → Go to **C21**, page 36

C3

D. Schizoaffective Disorder and Mood Disorder With Psychotic Features have been ruled out because either:

(1) no Major Depressive, Manic, or Mixed Episodes have occurred concurrently with the active-phase symptoms (i.e., the "A" symptoms listed in C2).

The following question may be asked for clarification: Has there ever been a time when you had [PSYCHOTIC SYMPTOMS] at the same time that you were [depressed/high/irritable/OWN WORDS]?

(2) if mood episodes have occurred concurrently during active-phase symptoms, their total duration has been brief relative to the duration of the active and residual periods.

Question for clarification: How much of the time that you have had [SYMPTOMS FROM ACTIVE AND RESIDUAL PHASES] would you say you have also been [depressed/high/irritable/OWN WORDS]?

NOTE: Answer "yes" if there have never been any Major Depressive, Manic, or Mixed Episodes, if all such episodes occurred during the prodromal or residual phase, or if mood symptoms are brief relative to the total disturbance. Answer "no" if any mood episodes overlap with psychotic symptoms AND the mood is a significant part of the total disturbance.

C3

yes

no → Go to C16, page 35

C4

C. Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms (i.e., affective flattening, alogia, avolition) or two or more symptoms listed in criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).

Question for clarification: Between [MULTIPLE EPISODES], were you back to your normal self? How long did each episode last?

C4

yes

no → Go to C13, page 34

C5

B. For a significant portion of the time since the onset of the disturbance, one or more major areas of functioning such as work, interpersonal relations, or self-care are markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, failure to achieve expected level of interpersonal, academic, or occupational achievement).

Question for clarification: When you [had "A" CRITERION SYMPTOMS], were you having trouble working or taking care of yourself?

C5

yes

no → Go to C39, page 43

C6

E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Questions for clarification: Were you taking any drugs or medicines during this time? Were you physically ill at this time?

If there is any indication that the psychotic symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 39 and return here to make a rating of "yes" or "no."

Etiological general medical conditions include neurological conditions (e.g., neoplasms, cerebrovascular disease, Huntington's disease, epilepsy, auditory nerve injury, deafness, migraine, central nervous system infections), endocrine conditions (e.g., hyper- and hypothyroidism, hyper- and hypoparathyroidism, hypocortisolism), metabolic conditions (e.g., hypoxia, hypercarbia, hypoglycemia), fluid or electrolyte imbalances, hepatic or renal diseases, and autoimmune disorders with central nervous system involvement (e.g., systemic lupus erythematosis).

Etiological substances include alcohol, amphetamine, cannabis, cocaine, hallucinogens, inhalants, opioids (meperidine), phencyclidine, sedatives, hypnotics, anxiolytics, and other or unknown substances.

C6

yes (i.e., not due to a substance or general medical condition)

no → Go back to C2, page 29, if there are other psychotic symptoms not due to a substance or general medical condition; otherwise, go to Module D, page 45

C7

CRITERIA A, B, C, D, AND E ARE MET (MAKE A DIAGNOSIS OF SCHIZOPHRENIA). IF UNKNOWN: Have you had [PSYCHOTIC OR OTHER SYMPTOMS CODED "+"] in the past month?

C7

C8

Consider Paranoid Type: Currently (or most recently):

A. Preoccupation with one or more delusions or frequent auditory hallucinations.

B. None of the following is prominent: disorganized speech, disorganized or catatonic behavior, or flat or inappropriate affect.

C8

no

yes

295.30 Schizophrenia, Paranoid Type

Go to **Module D**, page 45

C9

Consider Catatonic Type: Currently (or most recently) the clinical picture is dominated by at least two of the following:

(1) motoric immobility as evidenced by catalepsy (including waxy flexibility) or stupor

(2) excessive motor activity (that is apparently purposeless and not influenced by external stimuli)

(3) extreme negativism (an apparently motiveless resistance to all instructions or maintenance of a rigid posture against attempts to be moved) or mutism

(4) peculiarities of voluntary movement as evidenced by posturing (voluntary assumption of inappropriate or bizarre postures), stereotyped movements, prominent mannerisms, or prominent grimacing

(5) echolalia or echopraxia

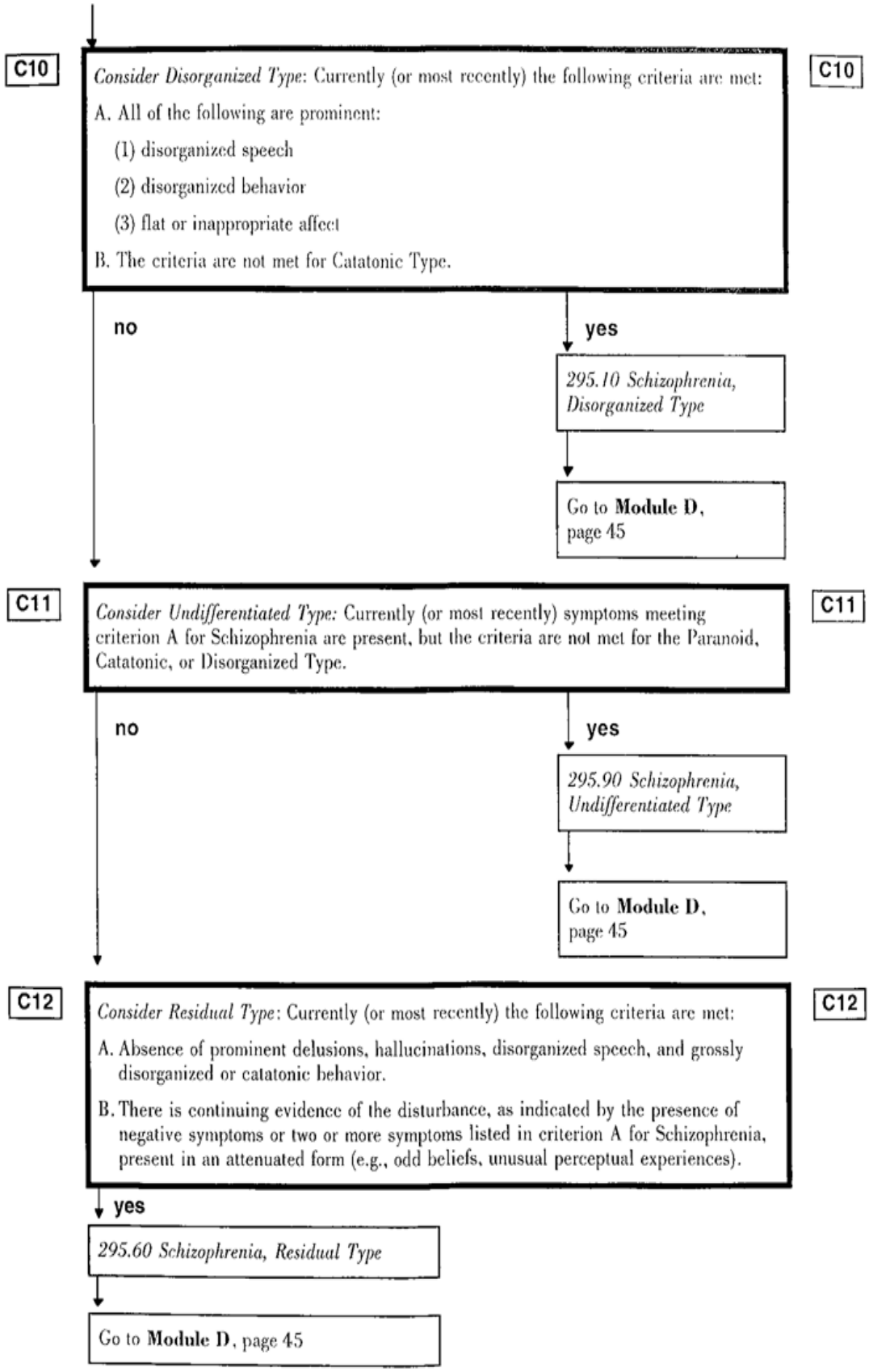
C9

no

yes

295.20 Schizophrenia, Catatonic Type

Go to **Module D**, page 45


C10
Consider Disorganized Type: Currently (or most recently) the following criteria are met:
A. All of the following are prominent:
(1) disorganized speech
(2) disorganized behavior
(3) flat or inappropriate affect
B. The criteria are not met for Catatonic Type.
C10
no
yes
295.10 Schizophrenia, Disorganized Type
Go to **Module D**, page 45
C11
Consider Undifferentiated Type: Currently (or most recently) symptoms meeting criterion A for Schizophrenia are present, but the criteria are not met for the Paranoid, Catatonic, or Disorganized Type.
C11
no
yes
295.90 Schizophrenia, Undifferentiated Type
Go to **Module D**, page 45
C12
Consider Residual Type: Currently (or most recently) the following criteria are met:
A. Absence of prominent delusions, hallucinations, disorganized speech, and grossly disorganized or catatonic behavior.
B. There is continuing evidence of the disturbance, as indicated by the presence of negative symptoms or two or more symptoms listed in criterion A for Schizophrenia, present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).
C12
yes
295.60 Schizophrenia, Residual Type
Go to **Module D**, page 45

CRITERIA FOR SCHIZOPHRENIFORM DISORDER

C13

B. An episode of the disorder (including prodromal, active, and residual phases) lasts at least 1 month but less than 6 months.

Question for clarification: How long did [PSYCHOTIC SYMPTOMS] last?

C13

yes

no → Go to C27, page 38

C14

A. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition.

Questions for clarification: Were you taking any drugs or medicines during this time? Were you physically ill at this time?

Refer to list of general medical conditions and substances in item C6, page 31.

If there is any indication that the psychotic symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 39 and return here to make a rating of "yes" or "no."

C14

yes (i.e., not due to a substance or general medical condition)

no → Go back to to C2, page 29, if there are other psychotic symptoms not due to a substance or general medical condition; otherwise, go to Module D, page 45

C15

CRITERIA A AND B ARE MET (MAKE A DIAGNOSIS OF *295.40* SCHIZOPHRENIFORM DISORDER). IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month?

C15

Go to **Module D**, page 45

CRITERIA FOR SCHIZOAFFECTIVE DISORDER

C16

A. An uninterrupted period of illness during which, at some time, there is either a Major Depressive Episode (which must include A(1) depressed mood), a Manic, or a Mixed Episode concurrent with symptoms that meet criterion A for Schizophrenia.

C16

yes

no → Go to C39, page 43

C17

B. During the same period of illness, there have been delusions or hallucinations for at least 2 weeks in the absence of prominent mood symptoms.

Question for clarification: Have there been any times when you had [PSYCHOTIC SYMPTOMS] when you were not [MANIC OR DEPRESSED]?

C17

yes

no → Go to C39, page 43

C18

C. Symptoms that meet criteria for a mood episode are present for a substantial portion of the total duration of the active and residual periods of the illness.

C18

yes

no → Go to C39, page 43

C19

D. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. *NOTE:* Refer to list of general medical conditions and substances in item C6, page 31.

Questions for clarification: Were you taking any drugs or medicines during this time? Were you physically ill at this time?

If there is any indication that the psychotic symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 39 and return here to make a rating of "yes" or "no."

C19

yes (i.e., not due to a substance or general medical condition)

no → Go back to C2, page 29, if there are other psychotic symptoms not due to a substance or general medical disorder; otherwise, go to Module D, page 45

C20 **CRITERIA A, B, C, AND D ARE MET** (MAKE A DIAGNOSIS OF *295.70* SCHIZOAFFECTIVE DISORDER). IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month? C20

Go to **Module D**, page 45

CRITERIA FOR DELUSIONAL DISORDER

C21 A. Nonbizarre delusions (i.e., involving situations that occur in real life, such as being followed, poisoned, infected, loved at a distance, or deceived by a spouse or lover, or having a disease) of at least 1 month's duration. C21

yes

no Go to **C27**, page 38

C22 B. Criterion A for Schizophrenia has never been met. **Note:** Tactile and olfactory hallucinations may be present in Delusional Disorder if they are related to the delusional theme. C22

yes

no Go to **C39**, page 43

C23 C. Apart from the impact of the delusion(s) or its ramifications, functioning is not markedly impaired and behavior is not obviously odd or bizarre. C23

yes

no Go to **C39**, page 43

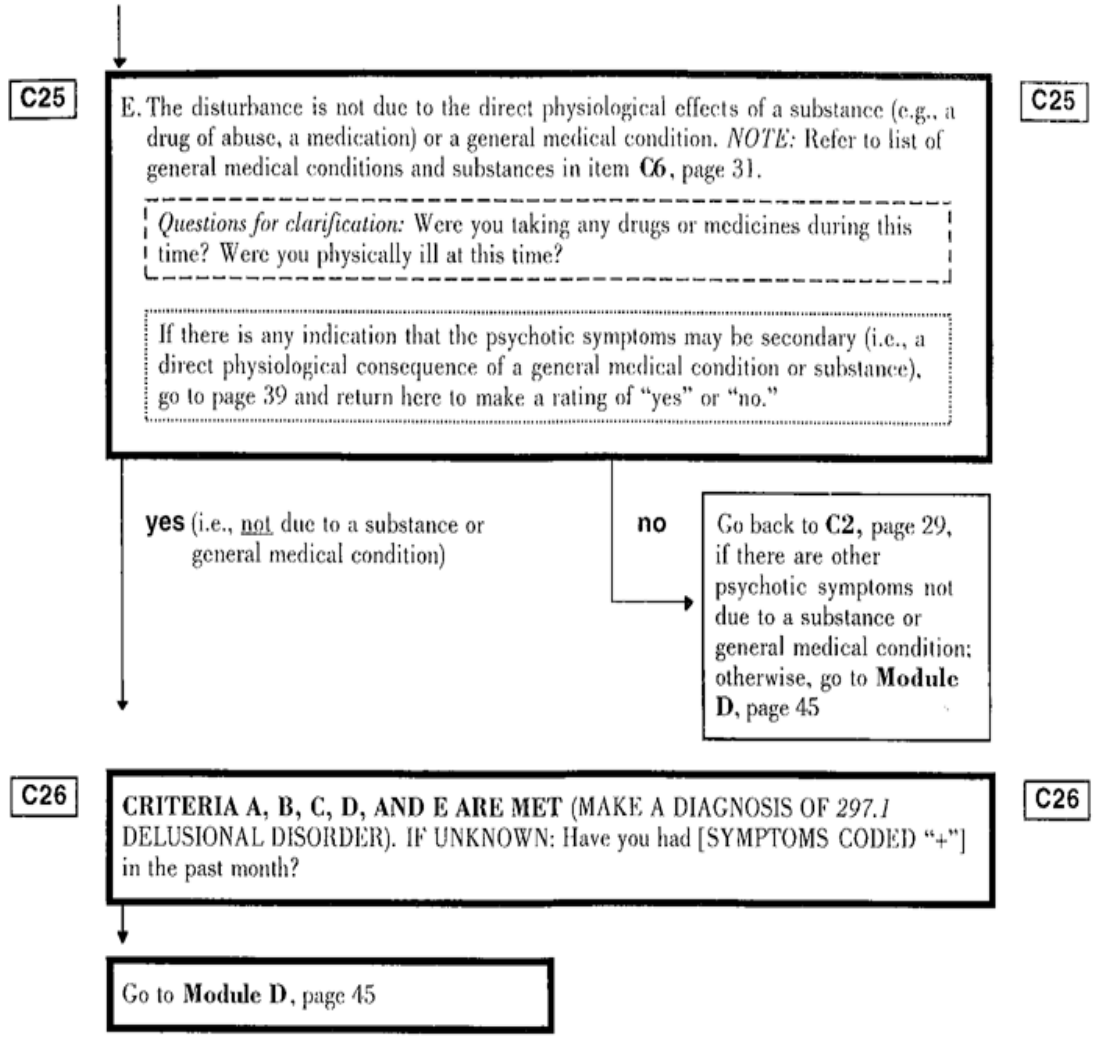
C24 D. If mood episodes have occurred concurrently with delusions, their total duration has been brief relative to the duration of the delusional periods. C24

Questions for clarification: Has there ever been a time when you have believed [DELUSIONS] at the same time you were [depressed/high/irritable/OWN WORDS]? How much of the time that you have believed [DELUSIONS] would you say you have also been [depressed/high/irritable/OWN WORDS]?

NOTE: Answer "yes" if 1) there have never been any mood episodes at all, 2) mood episodes occurred at times other than during delusional periods, or 3) mood episodes were brief relative to total duration of the delusional periods. Answer "no" if symptoms meeting criteria for mood episodes have been present for a substantial portion of the total duration of the disturbance.

yes

no Go to **C39**, page 43


C25
E. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. *NOTE:* Refer to list of general medical conditions and substances in item **C6**, page 31.
Questions for clarification: Were you taking any drugs or medicines during this time? Were you physically ill at this time?
If there is any indication that the psychotic symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 39 and return here to make a rating of "yes" or "no."
C25
yes (i.e., not due to a substance or general medical condition)
no
Go back to **C2**, page 29, if there are other psychotic symptoms not due to a substance or general medical condition; otherwise, go to **Module D**, page 45
C26
CRITERIA A, B, C, D, AND E ARE MET (MAKE A DIAGNOSIS OF *297.1* DELUSIONAL DISORDER). IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month?
C26
Go to **Module D**, page 45

CRITERIA FOR BRIEF PSYCHOTIC DISORDER

C27 A. Presence of one (or more) of the following symptoms: **C27**

(1) delusions
(2) hallucinations
(3) disorganized speech (e.g., frequent derailment or incoherence)
(4) grossly disorganized or catatonic behavior

yes → **no** → Go to **C39**, page 43

C28 B. Duration of an episode of the disturbance is at least 1 day but less than 1 month, with an eventual full return to premorbid level of functioning. **C28**

yes → **no** → Go to **C39**, page 43

C29 C(1) The disturbance is not better accounted for by a Mood Disorder With Psychotic Features, Schizoaffective Disorder, or Schizophrenia. **C29**

yes → **no** → Go to **C39**, page 43

C30 C(2) The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. *NOTE:* Refer to list of general medical conditions and substances in item **C6**, page 31. **C30**

Questions for clarification: Were you taking any drugs or medicines during this time? Were you physically ill at this time?

If there is any indication that the psychotic symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 39 and return here to make a rating of "yes" or "no."

yes (i.e., not due to a substance or general medical condition) → **no** → Go back to **C2**, page 29, if there are other psychotic symptoms not due to a substance or general medical condition; otherwise, go to **Module D**, page 45

C31 **CRITERIA A, B, AND C ARE MET** (MAKE A DIAGNOSIS OF *298.8* BRIEF PSYCHOTIC DISORDER). IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month? **C31**

Go to **Module D**, page 45

CONSIDER ETIOLOGICAL ROLE OF A GENERAL MEDICAL CONDITION OR SUBSTANCE USE

If psychotic symptoms are not temporally associated with a general medical condition, go to **C35**, page 41 (*Substance-Induced Psychotic Disorder*).

PSYCHOTIC DISORDER DUE TO A GENERAL MEDICAL CONDITION

C32 CODE BASED ON INFORMATION ALREADY OBTAINED

C33 Do you think your [DELUSIONS/ HALLUCINATIONS] were in any way related to your [COMORBID GENERAL MEDICAL CONDITION]?

IF YES: Tell me how.

(Did the [DELUSIONS/ HALLUCINATIONS] start or get much worse only after [COMORBID GENERAL MEDICAL CONDITION] began?)

IF YES AND GENERAL MEDICAL CONDITION HAS RESOLVED: Did the [DELUSIONS/HALLUCINATIONS] get better once the [COMORBID GENERAL MEDICAL CONDITION] got better?

CRITERIA FOR PSYCHOTIC DISORDER DUE TO A GENERAL MEDICAL CONDITION

NOTE: Criterion D (i.e., not during delirium) has been omitted from the SCID.

C32

A. Prominent hallucinations or delusions.

C33

B/C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition, and the disturbance is not better accounted for by another mental disorder.

If **C33** is "–" (general medical condition not etiological), go to **C35**, page 41 (*Substance-Induced Psychotic Disorder*).

C34 IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month?

CRITERIA A AND B/C ARE MET (MAKE A DIAGNOSIS OF PSYCHOTIC DISORDER DUE TO A GENERAL MEDICAL CONDITION) C34

If psychotic symptoms are <u>not</u> temporally associated with substance use, return to disorder being evaluated:

C6 for Schizophrenia (page 31)

C14 for Schizophreniform Disorder (page 34)

C19 for Schizoaffective Disorder (page 35)

C25 for Delusional Disorder (page 37)

C30 for Brief Psychotic Disorder (page 38)

SUBSTANCE-INDUCED PSYCHOTIC DISORDER

CRITERIA FOR SUBSTANCE-INDUCED PSYCHOTIC DISORDER

NOTE: Criterion D (i.e., not during delirium) has been omitted from the SCID.

C35 CODE BASED ON INFORMATION ALREADY OBTAINED

A. Prominent hallucinations or delusions. C35

Note: Do not include hallucinations if the person has insight (while they are experienced) that they are substance induced.

C36 IF NOT KNOWN: When did the [DELUSIONS/HALLUCINATIONS] begin? Were you already using [SUBSTANCE] or had you just stopped or cut down your use?

B. There is evidence from the history, physical examination, or laboratory findings of either (1) or (2) C36

(1) the symptoms in criterion A developed during, or within a month of, Substance Intoxication or Withdrawal

(2) medication use is etiologically related to the disturbance.

If C36 is "–" (i.e., not etiologically related to a substance), return to disorder being evaluated:

C6 for Schizophrenia (page 31)

C14 for Schizophreniform Disorder (page 34)

C19 for Schizoaffective Disorder (page 35)

C23 for Delusional Disorder (page 37)

C30 for Brief Psychotic Disorder (page 38)

C37 Do you think your [DELUSIONS/HALLUCINATIONS] are in any way related to your [SUBSTANCE USE]?

IF YES: Tell me how.

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT A NONSUBSTANCE ETIOLOGY

IF UNKNOWN: Which came first, the [SUBSTANCE USE] or the [DELUSIONS/HALLUCINATIONS]?

C. The disturbance is not better accounted for by a Psychotic Disorder that is not substance induced. Evidence that the symptoms are better accounted for by a Psychotic Disorder that is not substance induced might include: C37

(1) the psychotic symptoms precede the onset of the substance use (or medication use)

C37 (cont'd) IF UNKNOWN: Have you had a period of time when you stopped using [SUBSTANCE]?

IF YES: After you stopped using [SUBSTANCE] did the [DELUSIONS/ HALLUCINATIONS] get better?

IF UNKNOWN: How much of [SUBSTANCE] were you using when you began to have [DELUSIONS/ HALLUCINATIONS]?

IF UNKNOWN: Have you had any other episodes of [DELUSIONS/ HALLUCINATIONS]?

IF YES: How many? Were you using [SUBSTANCE] at those times?

(2) the psychotic symptoms persist for a substantial period of time (e.g., about a month) after the cessation of acute withdrawal or severe intoxication

C37 (cont'd)

(3) the psychotic symptoms are substantially in excess of what would be expected given the type or amount of the substance used or the duration of use

(4) there is other evidence that suggests the existence of an independent non-substance-induced Psychotic Disorder (e.g., a history of recurrent non-substance-related psychotic episodes).

If **C37** is "–" (i.e., the disturbance is better accounted for by a non-substance-induced psychotic disorder), return to disorder being evaluated:

C6 for Schizophrenia (page 31)

C14 for Schizophreniform Disorder (page 34)

C19 for Schizoaffective Disorder (page 35)

C25 for Delusional Disorder (page 37)

C30 for Brief Psychotic Disorder (page 38)

C38 IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month?

CRITERIA A, B, AND C ARE MET (MAKE A DIAGNOSIS OF SUBSTANCE-INDUCED PSYCHOTIC DISORDER) **C38**

Return to disorder being evaluated:

C6 for Schizophrenia (page 31)

C14 for Schizophreniform Disorder (page 34)

C19 for Schizoaffective Disorder (page 35)

C25 for Delusional Disorder (page 37)

C30 for Brief Psychotic Disorder (page 38)

298.9 PSYCHOTIC DISORDER NOT OTHERWISE SPECIFIED

C39

This category should be used to diagnose psychotic symptomatology (i.e., delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behavior) about which there is inadequate information to make a specific diagnosis or about which there is contradictory information, or disorders with psychotic symptoms that do not meet the criteria for any specific Psychotic Disorder defined above.

IF UNKNOWN: Have you had [PSYCHOTIC SYMPTOMS] in the past month?

C39

Go to **Module D**, page 45

D. MOOD DISORDERS

If there have never been any clinically significant mood symptoms, go to **Module E**, page 53.

CRITERIA FOR BIPOLAR I DISORDER

D1 History of one or more Manic or Mixed Episodes (see **A28**, page 12). **D1**

NOTE: In a Mixed Episode, the criteria are met for both a Manic Episode and a Major Depressive Episode (except for duration) nearly every day during at least a 1-week period.

yes

no → Go to **D5**, page 48

D2 At least one Manic or Mixed Episode is not due to the direct physiological effects of a general medical condition or substance use. **D2**

NOTE: Manic-like episodes that are clearly caused by somatic antidepressant treatment (e.g., medication, electroconvulsive therapy, light therapy) should not count toward a diagnosis of Bipolar I Disorder.

yes (i.e., primary Manic or Mixed episode)

no → Go to **D5**, page 48

D3 At least one Manic or Mixed Episode is not better accounted for by Schizoaffective Disorder and is not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified. **D3**

yes

no → Go to **D5**, page 48

BIPOLAR I DISORDER

Go to **D4**, page 46

D4

Select diagnostic code based on current (or most recent) episode (fifth digit is based on severity):

IF UNKNOWN: Have you had [MANIC OR DEPRESSIVE SYMPTOMS] in the past month?

296.40 Bipolar I Disorder, Most Recent Episode Hypomanic

296.0x Bipolar I Disorder, Single Manic Episode
296.4x Bipolar I Disorder, Most Recent Episode Manic

1—**Mild:** Minimum symptom criteria are met for a Manic Episode.
2—**Moderate:** Extreme increase in activity or impairment in judgment.
3—**Severe Without Psychotic Features:** Almost continual supervision required to prevent physical harm to self or others.
4—**Severe With Psychotic Features:** Delusions or hallucinations. If possible, specify whether psychotic features are mood-congruent or mood-incongruent: **Mood-Congruent Psychotic Features:** Delusions or hallucinations whose content is entirely consistent with the typical manic themes of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person. **Mood-Incongruent Psychotic Features:** Delusions or hallucinations whose content does not involve typical manic themes of inflated worth, power, knowledge, identity, or special relationship to a deity or famous person. Included are symptoms such as persecutory delusions (not directly related to grandiose ideas or themes), thought insertion, and delusions of being controlled.
5—**In Partial Remission:** Symptoms of a Manic Episode are present but full criteria are not met, or there is a period without any significant symptoms of a Manic Episode lasting less than 2 months, following the end of the Manic Episode.
6—**In Full Remission:** During the past 2 months, no significant signs or symptoms of the disturbance were present.
0—**Unspecified.**

296.6x Bipolar I Disorder, Most Recent Episode Mixed

1—**Mild:** No more than minimum symptom criteria are met for both a Manic Episode and a Major Depressive Episode.
2—**Moderate:** Symptoms or functional impairment between "mild" and "severe."
3—**Severe Without Psychotic Features:** Almost continual supervision required to prevent physical harm to self or others.
4—**Severe With Psychotic Features:** Delusions or hallucinations. If possible, specify whether psychotic features are mood-congruent or mood-incongruent: **Mood-Congruent Psychotic Features:** Delusions or hallucinations whose content is entirely consistent with the typical manic or depressive themes. **Mood-Incongruent Psychotic Features:** Delusions or hallucinations whose content does not involve typical manic or depressive themes. Included are symptoms such as persecutory delusions (not directly related to grandiose or depressive themes), thought insertion, and delusions of being controlled.
5—**In Partial Remission:** Symptoms of a Mixed Episode are present but full criteria are not met, or there is a period without any significant symptoms of a Mixed Episode lasting less than 2 months following the end of the Mixed Episode.
6—**In Full Remission:** During the past 2 months, no significant signs or symptoms of the disturbance were present.
0—**Unspecified.**

D4

D4 (cont'd)

296.5x Bipolar I Disorder, Most Recent Episode Depressed

1—**Mild:** Few, if any, symptoms in excess of those required to make the diagnosis, and symptoms result in only minor impairment in occupational functioning or in usual social activities or relationships with others.

2—**Moderate:** Symptoms or functional impairment between "mild" and "severe."

3—**Severe Without Psychotic Features:** Several symptoms in excess of those required to make the diagnosis, and symptoms markedly interfere with occupational functioning or with usual social activities or relationships with others.

4—**Severe With Psychotic Features:** Delusions or hallucinations. If possible, specify whether psychotic features are mood-congruent or mood-incongruent:
Mood-Congruent Psychotic Features: Delusions or hallucinations whose content is entirely consistent with the typical depressive themes of personal inadequacy, guilt, disease, death, nihilism, or deserved punishment.
Mood-Incongruent Psychotic Features: Delusions or hallucinations whose content does not involve typical depressive themes of personal inadequacy, guilt, disease, death, nihilism, or deserved punishment. Included are symptoms such as persecutory delusions (not directly related to grandiose or depressive themes), thought insertion, thought broadcasting, and delusions of control.

5—**In Partial Remission:** Symptoms of a Major Depressive Episode are present but full criteria are not met, or there is a period without any significant symptoms of a Major Depressive Episode lasting less than 2 months following the end of the Major Depressive Episode. (If the Major Depressive Episode was superimposed on Dysthymic Disorder, the diagnosis of Dysthymic Disorder alone is given once the full criteria for a Major Depressive Episode are no longer met.)

6—**In Full Remission:** During the past 2 months, no significant signs or symptoms of the disturbance were present.

0—**Unspecified.**

296.7 Bipolar I Disorder, Most Recent Episode Unspecified (Criteria, except for duration, are currently [or most recently] met for a Manic, a Hypomanic, a Mixed, or a Major Depressive Episode.)

D4 (cont'd)

Go to **Module E**, page 53

CRITERIA FOR BIPOLAR II DISORDER

D5 At least one Hypomanic Episode is not due to the direct physiological effects of a general medical condition or substance use (including somatic antidepressant treatment) (see **A43**, page 16). **D5**

yes

no → Go to **D10**, page 49

D6 At least one Major Depressive Episode is not due to the direct physiological effects of a general medical condition or substance use (see **A14**, page 7). **D6**

yes

no → Go to **D10**, page 49

D7 There have never been any Manic or Mixed Episodes. **D7**

yes

no → Go to **D10**, page 49

D8 The mood symptoms are not better accounted for by Schizoaffective Disorder and are not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified. **D8**

yes

BIPOLAR II DISORDER

no → Go to **D10**, page 49

D9 Specify current (or most recent) episode:
296.89 Bipolar II Disorder, Hypomanic
296.89 Bipolar II Disorder, Depressed

IF UNKNOWN: Have you had [HYPOMANIC OR DEPRESSIVE SYMPTOMS] in the past month? **D9**

Go to **Module E**, Page 53

OTHER BIPOLAR DISORDERS

D10 Clinically significant manic or hypomanic symptoms **D10**

yes

no → Go to **D13**, page 50

D11 Not due to the direct physiological effects of a general medical condition or substance (including somatic antidepressant treatment) **D11**

If there is any indication that the mood symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 20 and return here to make a rating of "yes" or "no."

yes

no → Go to **D13**, page 50

D12 **D12**

IF UNKNOWN: Have you had [MANIC OR DEPRESSIVE SYMPTOMS] in the past month?

Indicate type:

1—**301.13 Cyclothymic Disorder** (must meet all three of the following criteria):

A. For at least 2 years, the presence of numerous periods with hypomanic symptoms and numerous periods with depressive symptoms that do not meet criteria for a Major Depressive Episode.

Note: In children and adolescents, the duration must be at least 1 year.

B. During the above 2-year period, the person has not been without the symptoms in criterion A for more than 2 months at a time.

C. No Major Depressive Episode, Manic Episode, or Mixed Episode has been present during the first 2 years of the disturbance.

2—**296.80 Bipolar Disorder Not Otherwise Specified** (for disorders with bipolar features that do not meet criteria for any specific Bipolar Disorder)

Go to **Module E**, page 53

CRITERIA FOR MAJOR DEPRESSIVE DISORDER

D13 At least one Major Depressive Episode is not due to the direct physiological effects of a general medical condition or substance use (see **A14**, page 7). **D13**

yes

no → Go to **D17**, page 52

D14 At least one Major Depressive Episode is not better accounted for by Schizoaffective Disorder and is not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified. **D14**

yes

no → Go to **D17**, page 52

D15 There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode. **D15**

NOTE: In a Mixed Episode, the criteria are met for both a Manic Episode and a Major Depressive Episode (except for duration) nearly every day during at least a 1-week period.

yes

no → Go to **D17**, page 52

MAJOR DEPRESSIVE DISORDER

D16 Select diagnostic code based on number of episodes and severity of current episode: **D16**

IF UNKNOWN: Have you had [DEPRESSIVE SYMPTOMS] in the past month?

296.2x Major Depressive Disorder, Single Episode

296.3x Major Depressive Disorder, Recurrent
(to be considered separate episodes, there must be an interval of at least 2 consecutive months in which criteria are not met for a Major Depressive Episode)

1—**Mild:** Few, if any, symptoms in excess of those required to make the diagnosis and symptoms result in only minor impairment in occupational functioning or in usual social activities or relationships with others.
2—**Moderate:** Symptoms or functional impairment between "mild" and "severe."

D16 (cont'd)

3—**Severe Without Psychotic Features:** Several symptoms in excess of those required to make the diagnosis and symptoms markedly interfere with occupational functioning or with usual social activities or relationships with others.

4—**Severe With Psychotic Features:** Delusions or hallucinations. If possible, specify whether psychotic features are mood-congruent or mood-incongruent:
Mood-Congruent Psychotic Features: Delusions or hallucinations whose content is entirely consistent with the typical depressive themes of personal inadequacy, guilt, disease, death, nihilism, or deserved punishment.
Mood-Incongruent Psychotic Features: Delusions or hallucinations whose content does not involve typical depressive themes of personal inadequacy, guilt, disease, death, nihilsm, or deserved punishment. Included are symptoms such as persecutory delusions (not directly related to grandiose or depressive themes), thought insertion, thought broadcasting, and delusions of control.

5—**In Partial Remission:** Symptoms of a Major Depressive Episode are present but full criteria are not met, or there is a period without any significant symptoms of a Major Depressive Episode lasting less than 2 months following the end of the Major Depressive Episode. (If the Major Depressive Episode was superimposed on Dysthymic Disorder, the diagnosis of Dysthymic Disorder alone is given once the full criteria for a Major Depressive Episode are no longer met.)

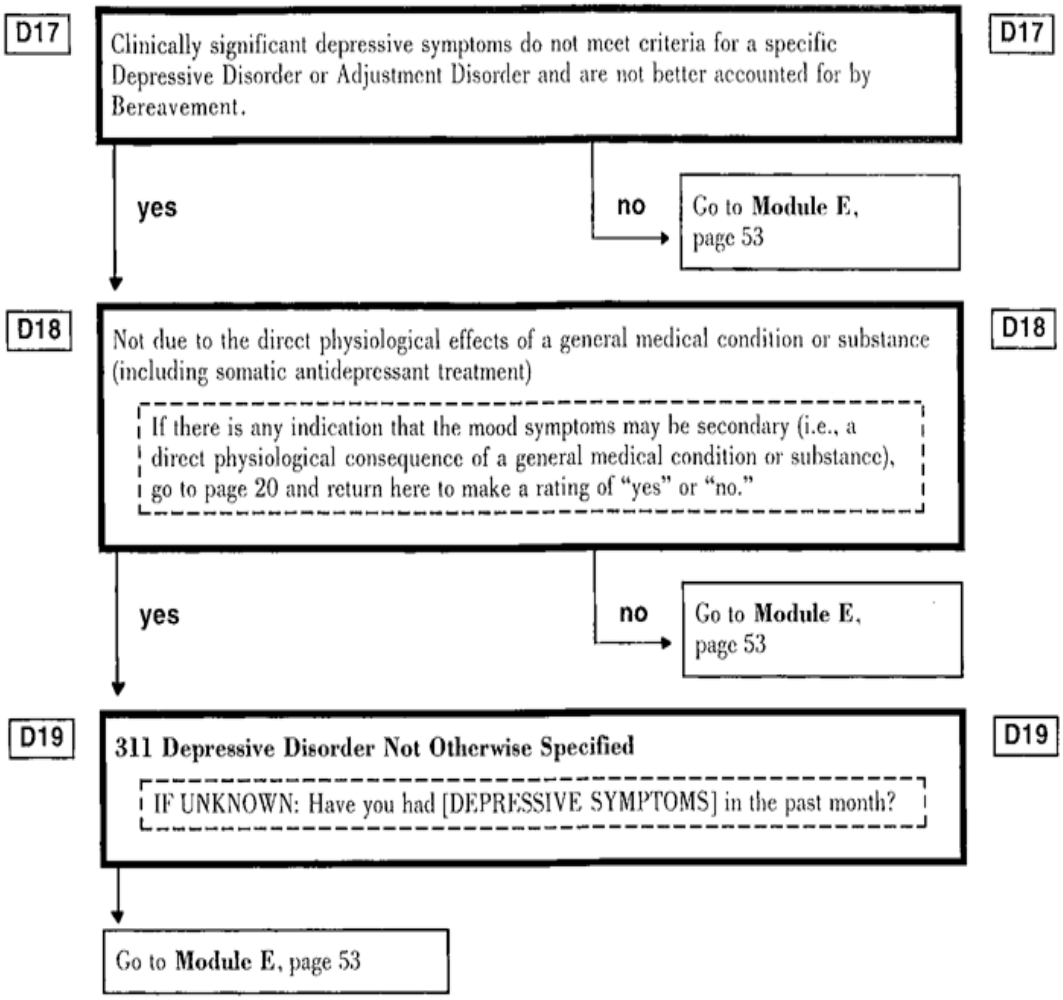
6—**In Full Remission:** During the past 2 months, no significant signs or symptoms of the disturbance were present.

0—**Unspecified.**

D16 (cont'd)

Go to **Module E**, page 53

DEPRESSIVE DISORDER NOT OTHERWISE SPECIFIED



E. ALCOHOL AND OTHER SUBSTANCE USE DISORDERS

What are your drinking habits like? (How much do you drink?) (How often?) (What do you drink?)

IF NOT CURRENTLY DRINKING HEAVILY: Was there ever a time in your life when you were drinking a lot more? (How often were you drinking?)(What were you drinking? How much? How long did that period last?)

(Currently/During that time. . .)

. . . (does/did) your drinking cause problems for you?

. . . (does/did) anyone object to your drinking?

If *Alcohol Dependence* seems likely, go to **E7** (page 55).

E1 has ever had a period of excessive drinking OR has ever had any evidence of alcohol-related problems **E1**

If **E1** is "–" (i.e., never excessive drinking AND never alcohol-related problems), go to **E17**, *Nonalcohol Substance Use Disorders*, page 58.

ALCOHOL ABUSE

Let me ask you a few more questions about [TIME WHEN DRINKING MOST/TIME WITH MOST PROBLEMS]. During that time . . .

CRITERIA FOR ALCOHOL ABUSE

A. A maladaptive pattern of substance use leading to clinically significant impairment or distress as manifested by one (or more) of the following occurring within a 12-month period:

E2 Did you ever miss work or school because you were intoxicated, high, or very hung over? (How often? What about doing a bad job at work or failing courses at school because of your drinking?)

IF NO: What about not keeping your house clean or not taking proper care of your children because of your drinking? (How often?)

(1) recurrent alcohol use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to alcohol use; alcohol-related absences, suspensions, or expulsions from school; neglect of children or household) **E2**

E3	Did you ever drink in a situation in which it might have been dangerous to drink at all? (Did you ever drive while you were really too drunk to drive?) IF YES: How many times? (When?)	(2) recurrent alcohol use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by alcohol use)	E3
E4	Did your drinking get you into trouble with the law? (Tell me more about that.) IF YES: How many times? (When?)	(3) recurrent alcohol-related legal problems (e.g., arrests for alcohol-related disorderly conduct)	E4
E5	IF NOT ALREADY KNOWN: Did your drinking cause problems with other people, such as with family members, friends, or people at work? (Have you ever gotten into physical fights when you were drinking? What about having bad arguments about your drinking?) IF YES: Did you keep on drinking anyway?	(4) continued alcohol use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of alcohol (e.g., arguments with spouse about consequences of intoxication, physical fights)	E5
E6	**AT LEAST ONE ABUSE ITEM IS "+"**		E6

If **E6** is "–" (i.e., no abuse items are "+"), go to **E17,** page 58 *(Nonalcohol Substance Use Disorders).*

If **E6** is "+" (i.e., at least one abuse item is "+") AND you have already checked for Dependence (i.e., evaluated **E7–E13** on pages 55–56) and found that fewer than three were "+," go to **E16,** page 57, and make a diagnosis of *Alcohol Abuse*.

ALCOHOL DEPENDENCE

Now I would like to ask you some more questions about your drinking (during that time).

CRITERIA FOR ALCOHOL DEPENDENCE

A maladaptive pattern of alcohol use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following occurring at any time in the same 12-month period:

NOTE: Criteria for Dependence are presented in a different order than in DSM-IV.

E7	Have you often found that when you started drinking you ended up drinking much more than you were planning to? IF NO: What about drinking over a much longer period of time than you were planning to?	(3) alcohol is often taken in larger amounts OR over a longer period than was intended	E7
E8	Have you tried to cut down or stop drinking alcohol? IF YES: Did you ever actually stop drinking altogether? (How many times did you try to cut down or stop altogether?) IF NO: Did you want to stop or cut down? (Is this something you kept worrying about?)	(4) there is a persistent desire OR unsuccessful efforts to cut down or control substance use	E8
E9	Have you spent a lot of time drinking, being high, or hung over?	(5) a great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects	E9
E10	Have you had times when you would drink so often that you started to drink instead of working, spending time with your family or friends, or engaging in other important activities, such as sports, gardening, or playing music?	(6) important social, occupational, or recreational activities are given up or reduced because of alcohol use	E10

E11 IF NOT ALREADY KNOWN: Has your drinking ever caused any psychological problems such as making you depressed or anxious, making it hard to sleep, or causing "blackouts?"

IF NOT ALREADY KNOWN: Has your drinking ever caused significant physical problems or made a physical problem worse?

IF YES TO EITHER OF ABOVE: Did you keep on drinking anyway?

(7) alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol (e.g., continued drinking despite recognition that an ulcer was made worse by alcohol consumption) **E11**

E12 Have you found that you needed to drink a lot more in order to get the feeling you wanted than you did when you first started drinking?

IF YES: How much more?

IF NO: What about finding that when you drank the same amount, it had much less effect than before?

(1) tolerance, as defined by either of the following: **E12**

(a) a need for markedly increased amounts of alcohol to achieve intoxication or desired effect

(b) markedly diminished effect with continued use of the same amount of alcohol

E13 Have you ever had any withdrawal symptoms when you cut down or stopped drinking such as . . .

. . . sweating or racing heart?
. . . hand shakes?
. . . trouble sleeping?
. . . feeling nauseated or vomiting?
. . . feeling agitated?
. . . or feeling anxious?

(How about having a seizure or seeing, feeling, or hearing things that weren't really there?)

IF NO: Have you ever started the day with a drink, or did you often drink or take some other drug or medication to keep yourself from getting the shakes or becoming sick?

(2) withdrawal, as manifested by either (a) or (b): **E13**

(a) at least <u>two</u> of the following developing within several hours to a few days after cessation of (or reduction in) heavy and prolonged alcohol use:
—autonomic hyperactivity (e.g., sweating or pulse rate greater than 100)
—increased hand tremor
—insomnia
—nausea or vomiting
—psychomotor agitation
—anxiety
—grand mal seizures
—transient visual, tactile, or auditory hallucinations or illusions

(b) alcohol (or a substance from the sedative/hypnotic/anxiolytic class) taken to relieve or avoid withdrawal symptoms

E14 IF UNKNOWN: When did [SYMPTOMS RATED "+" ABOVE] occur? (Did they all happen around the same time?)

AT LEAST THREE DEPENDENCE ITEMS (E7–E13) ARE "+" AND OCCURRED WITHIN THE SAME 12-MONTH PERIOD **E14**

If **E14** is "–" (fewer than three dependence items are "+") AND you previously skipped **E2–E5** (because dependence seemed likely), return to **E2**, page 53, and check for *Alcohol Abuse*.

If **E14** is "–" (fewer than three dependence items are "+") AND **E6**, page 54, is "+" (criteria met for *Alcohol Abuse*) go to **E16** (below).

E15 IF UNKNOWN: Have you had [SYMPTOMS RATED "+" ABOVE] in the past month?

MAKE A DIAGNOSIS OF ALCOHOL DEPENDENCE **E15**

Go to **E17**, page 58 (*Nonalcohol Substance Use Disorders*).

E16 IF UNKNOWN: Have you had [SYMPTOMS OF ABUSE RATED "+"] in the past month?

MAKE A DIAGNOSIS OF ALCOHOL ABUSE **E16**

Go to **E17**, page 58 (*Nonalcohol Substance Use Disorders*).

NONALCOHOL SUBSTANCE USE DISORDERS

Have you ever taken any of these to get high, to sleep better, to lose weight, or to change your mood?

SHOW DRUG LIST (LAST PAGE OF SCORESHEET) TO PATIENT AND RECORD INFORMATION ON SCORESHEET

E17 Which one caused you the most problems?

IF DENIES PROBLEMS: Which one did you use the most?

INDICATE ON SCORESHEET DRUG CLASS WITH HEAVIEST USE/MOST PROBLEMS OR "NONE" IF NO HEAVY DRUG USE AND NO DRUG-RELATED PROBLEMS **E17**

IF Nonalcohol Substance Dependence seems likely, skip to **E23,** page 60.

If "NONE" recorded for **E17,** go to **Module F,** page 65 (*Anxiety and Other Disorders*).

NONALCOHOL SUBSTANCE ABUSE

Now I'd like to ask you some questions about your use of [DRUG USED THE MOST OR CAUSED THE MOST PROBLEMS].

E18 Have you ever missed work or school because you were high or very hung over? (How often?) (What about doing a bad job at work or failing courses at school because you used [DRUG]?)

IF NO: What about not keeping your house clean or not taking proper care of your children because of using [DRUG]? (How often?)

CRITERIA FOR NONALCOHOL SUBSTANCE ABUSE

A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

(1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household) **E18**

E19	Have you ever used [DRUG] in a situation in which it might have been dangerous? (Have you ever driven when you were really too high to drive?) IF YES: How often? (When?)	(2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)	E19
E20	Has your use of [DRUG] gotten you into trouble with the law? IF YES: How often? (When?)	(3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)	E20
E21	IF NOT ALREADY KNOWN: Has your use of [DRUG] caused problems with other people, such as with family members, friends, or people at work? (Have you ever gotten into physical fights when you were using [DRUG]?) (What about having bad arguments about your drug use?) IF YES: Did you keep on using [DRUG] anyway?	(4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)	E21
E22		**AT LEAST ONE ABUSE ITEM IS "+"**	E22

If **E22** is "–" (i.e., no abuse items are "+"), either go back to **E17,** page 58, if the use of any other class of drug may also have been problematic or excessive, or else go to **Module F**, page 65 (*Anxiety and Other Disorders).*

If **E22** is "+" (i.e., at least one abuse item is "+") AND you have already checked for Dependence (i.e., evaluated **E23–E29** on pages 60–61) and found that fewer than 3 were "+," go to **E32,** page 62, and make a diagnosis of *Nonalcohol Substance Abuse*.

NONALCOHOL SUBSTANCE DEPENDENCE

I would now like to ask you some more questions about your use of [DRUG].

CRITERIA FOR NONALCOHOL SUBSTANCE DEPENDENCE

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

NOTE: Criteria for Dependence are presented in a different order than in DSM-IV.

E23	Have you often found that when you started using [DRUG] you ended up using much more than you were planning to? IF NO: What about using it for a much longer period of time than you were planning to?	(3) the substance is often taken in larger amounts OR over a longer period than was intended	E23
E24	Have you tried to cut down or stop using [DRUG]? IF YES: Did you ever actually stop using [DRUG] altogether? (How many times did you try to cut down or stop altogether?) IF NO: Did you want to stop or cut down? (Is this something you kept worrying about?)	(4) there is a persistent desire OR unsuccessful efforts to cut down or control substance use	E24
E25	Have you spent a lot of time using [DRUG] or doing whatever you had to do to get it? Did it take you a long time to get back to normal?	(5) a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance, or recover from its effects	E25
E26	Have you had times when you would use [DRUG] so often that you started to use [DRUG] instead of working, spending time with your family or friends, or engaging in other important activities, such as sports, gardening, or playing music?	(6) important social, occupational, or recreational activities are given up or reduced because of substance use	E26

E27 IF NOT ALREADY KNOWN: Has your drug use ever caused any psychological problems such as making you depressed or anxious, making it difficult to sleep, or causing "blackouts"?

IF NOT ALREADY KNOWN: Has your drug use ever caused significant physical problems or made a physical problem worse?

IF YES TO EITHER OF ABOVE: Did you keep on using anyway?

(7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression) **E27**

E28 Have you found that you needed to use a lot more [DRUG] in order to get the feeling you wanted than you did when you first started using it?

IF YES: How much more?

IF NO: What about finding that when you used the same amount, it had much less effect than before?

(1) tolerance, as defined by either of the following: **E28**

(a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect

(b) markedly diminished effect with continued use of the same amount of the substance

E29 THE FOLLOWING MAY NOT APPLY TO CANNABIS, HALLUCINOGENS, AND PHENCYCLIDINE.

Have you ever had any withdrawal symptoms, that is, felt sick when you cut down or stopped using [DRUG]?

IF YES: What symptoms did you have? [REFER TO LIST OF WITHDRAWAL SYMPTOMS ON PAGE 63]

IF HAD WITHDRAWAL SYMPTOMS: After not using [DRUG] for a few hours or more, have you often used it to keep yourself from getting sick with [WITHDRAWAL SYMPTOMS]?

What about using [DRUG IN SAME CLASS] when you were feeling sick with [WITHDRAWAL SYMPTOMS] so that you would feel better?

(2) withdrawal, as manifested by either (a) or (b): **E29**

(a) the characteristic withdrawal syndrome for the substance (see page 61)

(b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

E30 IF UNKNOWN: When did [SYMPTOMS RATED "+" ABOVE] occur? (Did they all happen around the same time?)

AT LEAST THREE DEPENDENCE ITEMS (E23–E29) ARE "+" AND OCCURRED WITHIN THE SAME 12-MONTH PERIOD E30

If **E30** is "–" (fewer than three dependence items are "+") AND you previously skipped **E18–E21**, pages 58–59 (because dependence seemed likely), return to **E18**, page 58, and check for *Nonalcohol Substance Abuse*.

If **E30** is "–" (fewer than three dependence items are "+") AND **E22**, page 59, is "+" (criteria met for *Nonalcohol Substance Abuse*), go to **E32**, below.

E31 IF UNKNOWN: Have you had [SYMPTOMS RATED "+" ABOVE] in the past month?

MAKE A DIAGNOSIS OF SUBSTANCE DEPENDENCE E31

Go to **Module F**, page 65 *(Anxiety and Other Disorders)*.

E32 IF UNKNOWN: Have you had [SYMPTOMS OF ABUSE RATED "+"] in the past month?

MAKE A DIAGNOSIS OF SUBSTANCE ABUSE E32

Go to **Module F**, page 65 *(Anxiety and Other Disorders)*.

LIST OF WITHDRAWAL SYMPTOMS (FROM DSM-IV CRITERIA)

Listed below are the characteristic withdrawal symptoms for those classes of substances for which a withdrawal syndrome has been identified. (*NOTE:* A specific withdrawal syndrome has not been identified for CANNABIS and HALLUCINOGENS/PCP.) Withdrawal symptoms may occur following the cessation of prolonged moderate or heavy use of a substance or a reduction in the amount used.

SEDATIVES, HYPNOTICS, AND ANXIOLYTICS: Two (or more) of the following, developing within several hours to a few days after cessation (or reduction) of sedative, hypnotic, or anxiolytic use, that has been heavy and prolonged:

(1) autonomic hyperactivity (e.g., sweating or pulse rate greater than 100)
(2) increased hand tremor
(3) insomnia
(4) nausea or vomiting
(5) transient visual, tactile, or auditory hallucinations or illusions
(6) psychomotor agitation
(7) anxiety
(8) grand mal seizures

STIMULANTS/COCAINE: Dysphoric mood AND two (or more) of the following physiological changes, developing within a few hours to several days after cessation (or reduction of stimulant or cocaine use that has been heavy and prolonged):

(1) fatigue
(2) vivid, unpleasant dreams
(3) insomnia or hypersomnia
(4) increased appetite
(5) psychomotor retardation or agitation

OPIOIDS: Three (or more) of the following, developing within minutes to several days after cessation (or reduction) of opioid use that has been heavy and prolonged (several weeks or longer) or after administration of an opioid antagonist (after a period of opioid use):

(1) dysphoric mood
(2) nausea or vomiting
(3) muscle aches
(4) lacrimation or rhinorrhea
(5) pupillary dilation, piloerection, or sweating
(6) diarrhea
(7) yawning
(8) fever
(9) insomnia

F. ANXIETY AND OTHER DISORDERS

PANIC DISORDER

CRITERIA FOR PANIC DISORDER

F1 Have you ever had a panic attack when you suddenly felt frightened or anxious or suddenly developed a lot of physical symptoms?

IF YES: Have these attacks ever come on completely out of the blue—in situations where you did not expect to be nervous or uncomfortable?

IF UNCLEAR: How many of these kinds of attacks have you had? (At least two?)

A. (1) recurrent unexpected panic attacks F1

If **F1** is "–" (i.e., no recurrent unexpected attacks), go to **F25,** page 70 *(check for Obsessive-Compulsive Disorder).*

F2 After any of these attacks...

(2) at least one of the attacks has been followed by 1 month (or more) of one (or more) of the following: F2

Did you worry that there might be something terribly wrong with you, like you were having a heart attack or were going crazy? (How long did you worry? At least a month?)

(b) worry about the implications of the attack or its consequences (e.g., losing control, having a heart attack, "going crazy")

IF NO: Did you worry a lot about having another one? (How long did you worry? At least a month?)

(a) persistent concern about having additional attacks

IF NO: Did you do anything differently because of the attacks, like avoiding certain places or not going out alone? (What about avoiding certain activities such as exercise? What about things like always making sure you're near a bathroom or an exit?)

(c) a significant change in behavior related to the attacks

If **F2** is "–" (i.e., no persistent concern about attacks or implications and no change in lifestyle), go to **F25,** page 70 *(check for Obsessive-Compulsive Disorder).*

When was the last bad one? What was the first thing you noticed? Then what?

F3	IF UNKNOWN: Did the symptoms come on all of a sudden? IF YES: How long did it take from when it began to when it got really bad? (Less than 10 minutes?)	The panic attack symptoms developed abruptly and reached a peak within 10 minutes	F3

If **F3** is "–" (i.e., symptoms did not develop abruptly or took longer than 10 minutes to reach peak), go to **F25,** page 70 *(check for Obsessive-Compulsive Disorder).*

During that attack...

F4	... did your heart race, pound, or skip?	(1) palpitations, pounding heart, or accelerated heart rate	F4
F5	... did you sweat?	(2) sweating	F5
F6	... did you tremble or shake?	(3) trembling or shaking	F6
F7	... were you short of breath? (have trouble catching your breath?)	(4) sensations of shortness of breath or smothering	F7
F8	... did you feel as if you were choking?	(5) feeling of choking	F8
F9	... did you have chest pain or pressure?	(6) chest pain or discomfort	F9
F10	... did you have nausea or an upset stomach or the feeling that you were going to have diarrhea?	(7) nausea or abdominal distress	F10
F11	... did you feel dizzy, unsteady, or like you might faint?	(8) feeling dizzy, unsteady, lightheaded, or faint	F11
F12	... did things around you seem unreal or did you feel detached from things around you or detached from parts of your body?	(9) derealization (feelings of unreality) or depersonalization (being detached from oneself)	F12
F13	... were you afraid you were going crazy or might lose control?	(10) fear of losing control or going crazy	F13

F14	. . . were you afraid you might die?	(11) fear of dying	F14
F15	. . . did you have tingling or numbness in parts of your body?	(12) paresthesias (numbness or tingling sensations)	F15
F16	. . . did you have flushes (hot flashes) or chills?	(13) chills or hot flushes	F16
F17		**AT LEAST FOUR OF F4–F16 ARE "+"**	F17

IF **F17** is "–" (i.e., three or fewer symptoms of a panic attack were present), go to **F25,** page 70 *(check for Obsessive-Compulsive Disorder).*

F18 Just before this began, were you physically ill?

Just before this began, were you taking any medications?

IF YES: Any change in the amount you were taking?

Just before this began, were you drinking or using any street drugs?

If there is any indication that the panic attacks may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 81 and return here to make rating of "–" or "+."

C. Not due to the direct physiological effects of a substance (e.g., a drug of abuse, medication) or to a general medical condition. **F18**

Etiological general medical conditions include hyperthyroidism, hyperparathyroidism, pheochromocytoma, vestibular dysfunctions, seizure disorders, and cardiac conditions (e.g., arrhythmias, supraventricular tachycardia).

Etiological substances include intoxication with central nervous stimulants (e.g., cocaine, amphetamines, caffeine) or cannabis or withdrawal from central nervous system depressants (e.g., alcohol, barbiturates) or from cocaine.

If **F18** above is "–" (i.e., panic attacks due to substance or general medical condition), ask the following:

Have there been any other times when you have had panic attacks and they were not because of [GENERAL MEDICAL CONDITION/SUBSTANCE USE]?

If "yes," go back to **F1,** page 65, and ask about those attacks.
If "no," go to **F25,** page 70 *(check for Obsessive-Compulsive Disorder).*

F19

D. The panic attacks are not better accounted for by another mental disorder, such as Specific Phobia (e.g., on exposure to a specific phobic situation), Obsessive-Compulsive Disorder (e.g., on exposure to dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., in response to stimuli associated with a severe stressor), Separation Anxiety Disorder (e.g., in response to being away from home or close relatives), or Social Phobia (e.g., occurring on exposure to feared social situations). F19

If **F19** is "–" (i.e., panic attacks are better accounted for by another mental disorder), go to **F25,** page 70 *(check for Obsessive-Compulsive Disorder).*

CRITERIA FOR PANIC DISORDER WITH AGORAPHOBIA

F20 IF NOT OBVIOUS FROM OVERVIEW: Are there situations that make you nervous because you are afraid that you might have a panic attack?

IF YES: Tell me about that. . .

IF CANNOT GIVE SPECIFICS: What about. . .

. . . being uncomfortable if you're more than a certain distance from home?
. . . being in a crowded place like a busy store, movie theater, or restaurant?
. . . standing in a line?
. . . being on a bridge?
. . . using public transportation—like a bus, train, or subway—or driving a car?

B. The presence of Agoraphobia: F20

(1) Anxiety about being in places or situations from which escape might be difficult (or embarrassing) or in which help may not be available in the event of having an unexpected or situationally predisposed panic attack. Agoraphobic fears typically involve characteristic clusters of situations that include being outside the home alone; being in a crowd or standing in a line; being on a bridge; and traveling in a bus, train, or automobile.

If **F20** is "–" (no anxiety about being in places associated with panic attack), go to **F24,** page 69.

F21 Do you avoid these situations?

IF NO: When you are in one of these situations, do you feel very uncomfortable or as if you might have a panic attack?

(Can you go into one of these situations only if you are with someone you know?)

(2) Agoraphobic situations are avoided (e.g., travel is restricted) or else are endured with marked distress or with anxiety about having a panic attack or panic-like symptoms, or require the presence of a companion. **F21**

If **F21** is "–" (i.e., agoraphobic situations are not avoided and there is no distress), go to **F24**, below.

F22

(3) The anxiety or phobic avoidance is not better accounted for by another mental disorder, such as Social Phobia (e.g., avoidance limited to social situations because of fear of embarrassment), Specific Phobia (e.g., avoidance limited to a single situation such as elevators), Obsessive-Compulsive Disorder (e.g., avoidance of dirt in someone with an obsession about contamination), Posttraumatic Stress Disorder (e.g., avoidance of stimuli associated with a severe stressor), or Separation Anxiety Disorder (e.g., avoidance of leaving home or relatives). **F22**

If **F22** is "–" (i.e., avoidance is better accounted for by another mental disorder), go to **F24**, below.

F23 IF UNKNOWN: Have you had [PANIC ATTACKS OR SYMPTOMS OF AGORAPHOBIA] in the past month?

AGORAPHOBIA IS PRESENT WITH PANIC DISORDER. (MAKE A DIAGNOSIS OF 300.21 PANIC DISORDER WITH AGORAPHOBIA) **F23**

Go to **F25**, page 70 (check for *Obsessive-Compulsive Disorder*).

F24 IF UNKNOWN: Have you had any panic attacks in the past month?

AGORAPHOBIA IS <u>NOT</u> PRESENT WITH PANIC DISORDER. (MAKE A DIAGNOSIS OF 300.01 PANIC DISORDER WITHOUT AGORAPHOBIA) **F24**

Go to **F25**, page 70 (check for *Obsessive-Compulsive Disorder*).

OBSESSIVE-COMPULSIVE DISORDER

CRITERIA FOR OBSESSIVE-COMPULSIVE DISORDER

F25 Now I would like to ask you if you have ever been bothered by thoughts that did not make any sense and kept coming back to you even when you tried not to have them?

(What were they?)

IF PATIENT NOT SURE WHAT IS MEANT: . . . Thoughts like hurting someone even though you really did not want to, or being contaminated by germs or dirt?

Obsessions are defined by (1), (2), (3), and (4): **F25**

(1) recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress

If **F25** is "–" (i.e., no recurrent thoughts that are intrusive and inappropriate), go to **F30**, page 71.

F26

(2) the thoughts, impulses, or images are not simply excessive worries about real-life problems **F26**

If **F26** is "–" (i.e., thoughts are simply worries about real-life problems), go to **F30,** page 71.

F27 When you had these thoughts, did you try hard to get them out of your head? (What would you try to do?)

(3) the person attempts to ignore or suppress such thoughts, impulses, or images or to neutralize them with some other thought or action **F27**

If **F27** is "–" (i.e., no attempt to ignore or suppress thoughts), go to **F30**, page 71.

F28 IF UNCLEAR: Where do you think these thoughts are coming from?

(4) the person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion) **F28**

If **F28** is "–" (i.e., person feels thoughts are imposed from without), go to **F30,** page 71.

F29

OBSESSIONS (1), (2), (3), AND (4) ARE "+" **F29**

F30 Was there ever anything that you had to do over and over again and could not resist doing, such as washing your hands again and again, counting up to a certain number, or checking something several times to make sure you had done it right?

(What did you have to do?)

Compulsions as defined by (1) and (2): **F30**

(1) repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to certain rules that must be applied rigidly

If **F30** is "–" (i.e., no repetitive behaviors or mental acts in response to obsession or according to rules), go to **F33,** below.

F31 IF UNCLEAR: Why did you have to do [COMPULSIVE ACT]? What would happen if you did not do it?

IF UNCLEAR: How many times would you do [COMPULSIVE ACT]? How much time a day would you spend doing it?

(2) the behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to prevent or neutralize or are clearly excessive **F31**

If **F31** is "–" (i.e., behaviors or acts are not aimed at preventing distress or some dreaded event and are not excessive), go to **F33,** below.

F32 **COMPULSIONS (1) AND (2) ARE "+"** **F32**

F33 **EITHER F29 IS "+" OR F32 IS "+"**

A. Either obsessions or compulsions **F33**

If **F33** is "–" (i.e., neither obsessions nor compulsions present), go to **F39,** page 73 *(check for Posttraumatic Stress Disorder).*

F34 Have you (thought about [OBSESSIVE THOUGHTS]/done [COMPULSIVE ACTS]) more than you should have (or than made sense)?

IF NO: How about when you first started having this problem?

B. At some point during the course of the disorder, the person has recognized that the obsessions or compulsions are excessive or unreasonable. **Note:** This does not apply to children. **F34**

If **F34** is "–" (i.e., never recognized that obsessions or compulsions are unreasonable), go to **F39,** page 73 *(check for Posttraumatic Stress Disorder).*

F35 What effect does this [OBSESSION OR COMPULSION] have on your life? (Did [OBSESSION OR COMPULSION] bother you a lot? How much time have you spent on [OBSESSION OR COMPULSION]?)

C. The obsessions or compulsions cause marked distress, are time-consuming (take more than an hour a day), or significantly interfere with the person's normal routine, occupational functioning, or usual social activities or relationships. **F35**

If **F35** is "–" (i.e., obsessions and compulsions not clinically significant), go to **F39,** page 73 *(check for Posttraumatic Stress Disorder).*

F36

D. If another Axis I disorder is present, the content of the obsessions or compulsions is not restricted to it (e.g., preoccupation with food in the presence of an Eating Disorder; hair pulling in the presence of Trichotillomania; concern with appearance in the presence of Body Dysmorphic Disorder; preoccupation with drugs in the presence of a Substance Use Disorder; preoccupation with having a serious illness in the presence of Hypochondriasis; preoccupation with sexual urges or fantasies in the presence of a Paraphilia; or guilty ruminations in the presence of Major Depressive Disorder). **F36**

If **F36** is "–" (i.e., the content of obsessions and compulsions is restricted to another Axis I disorder), go to **F39,** page 73 *(check for Posttraumatic Stress Disorder).*

F37 Just before you began having [OBSESSIONS OR COMPULSIONS] were you taking any drugs or medicines?

Just before the [OBSESSIONS OR COMPULSIONS] started, were you physically ill?

If there is any indication that the obsessions or compulsions may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 81 and return here to make rating of "–" or "+."

E. Not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition. **F37**

Etiological general medical conditions include certain central nervous system neoplasms.

Etiological substances include intoxication with central nervous system stimulants (e.g., cocaine, amphetamines).

If **F37** is "–" (i.e., the obsessions and compulsions are due to general medical condition or substance), go to **F39,** page 73 *(check for Posttraumatic Stress Disorder).*

F38 IF UNKNOWN: Have you had [OBSESSIONS OR COMPULSIONS] in the past month?

CRITERIA A, B, C, D, AND E ARE "+" (MAKE A DIAGNOSIS OF 300.3 OBSESSIVE-COMPULSIVE DISORDER) F38

POSTTRAUMATIC STRESS DISORDER

F39 Sometimes things happen to people that are extremely upsetting—things such as being in a life-threatening situation such as a major disaster, very serious accident or fire; being physically assaulted or raped; seeing another person killed or dead, or badly hurt, or hearing about something horrible that has happened to someone you are close to. At any time during your life, have any of these kinds of things happened to you?

IF ANY EVENTS LISTED: Sometimes these things keep coming back in nightmares, flashbacks, or thoughts that you can't get rid of. Has that ever happened to you?

IF NO: What about being very upset when you were in a situation that reminded you of one of these terrible things?

RECORD TRAUMATIC EVENTS ON SCORESHEET. F39

If no events listed or answer to both of above questions is no, go to **F65**, page 77.

FOR FOLLOWING QUESTIONS, FOCUS ON TRAUMATIC EVENT(S) MENTIONED IN SCREENING QUESTION ABOVE.

CRITERIA FOR PTSD

A. The person has been exposed to a traumatic event in which both of the following were present:

F40 IF MORE THAN ONE TRAUMA IS REPORTED: Which of these do you think affected you the most?

(1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others F40

If **F40** is "–" (i.e., no qualifying stressor), go to **F65**, page 77.

F41	IF UNCLEAR: How did you react when [TRAUMA] happened? (Were you very afraid or did you feel terrified or helpless?)	(2) the person's response involved intense fear, helplessness, or horror. **Note:** In children, this may be expressed instead by disorganized or agitated behavior.	F41

If **F41** is "–" (i.e., person did not react with fear, helplessness, or horror), go to **F65**, page 77.

	Now I would like to ask a few questions about specific ways that it may have affected you. For example...	B. The traumatic event is persistently reexperienced in one (or more) of the the following ways:	
F42	... did you think about [TRAUMA] when you did not want to or did thoughts about [TRAUMA] come to you suddenly when you didn't want them to?	(1) recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.	F42
F43	... what about having dreams about [TRAUMA]?	(2) recurrent distressing dreams of the event **Note:** In children, there may be frightening dreams without recognizable content.	F43
F44	... what about finding yourself acting or feeling as if you were back in the situation?	(3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated)	F44
F45	... what about getting very upset when something reminded you of [TRAUMA]?	(4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event **Note:** In young children, trauma-specific reenactment may occur.	F45
F46	... what about having physical symptoms—such as breaking out in a sweat, breathing heavily or irregularly, or your heart pounding or racing?	(5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event	F46
F47		**AT LEAST ONE "B" SYMPTOM IS "+"**	F47

If **F47** is "–" (i.e., no "B" symptoms are "+"), go to **F65**, page 77.

		C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:	
	Since [TRAUMA]. . .		
F48	. . . have you made a special effort to avoid thinking or talking about what happened?	(1) efforts to avoid thoughts, feelings, or conversations associated with the trauma	F48
F49	. . . have you stayed away from things or people that reminded you of [TRAUMA]?	(2) efforts to avoid activities, places, or people that arouse recollections of the trauma	F49
F50	. . . have you been unable to remember some important part of what happened?	(3) inability to recall an important aspect of the trauma	F50
F51	. . . have you been much less interested in doing things that used to be important to you, such as seeing friends, reading books, or watching TV?	(4) markedly diminished interest or participation in significant activities	F51
F52	. . . have you felt distant or cut off from others?	(5) feeling of detachment or estrangement from others	F52
F53	. . . have you felt "numb" or as if you no longer had strong feelings about anything or loving feelings for anyone?	(6) restricted range of affect (e.g., unable to have loving feelings)	F53
F54	. . . did you notice a change in the way you think about or plan for the future?	(7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)	F54
F55		**AT LEAST 3 "C" SYMPTOMS ARE "+"**	F55

If **F55** is "–" (i.e., fewer than three "C" symptoms are "+"), go to **F65**, page 77.

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

Since [TRAUMA]. . .

F56	. . . have you had trouble sleeping? (What kind of trouble?)	(1) difficulty falling or staying asleep	F56
F57	. . . have you been unusually irritable? What about outbursts of anger?	(2) irritability or outbursts of anger	F57
F58	. . . have you had trouble concentrating?	(3) difficulty concentrating	F58
F59	. . . have you been watchful or on guard even when there was no reason to be?	(4) hypervigilance	F59
F60	. . . have you been jumpy or easily startled, such as by sudden noises?	(5) exaggerated startle response	F60
F61		**AT LEAST TWO "D" SYMPTOMS ARE "+"**	F61

If **F61** is "–" (i.e., fewer than two "D" symptoms are "+"), go to **F65**, page 77.

F62	About how long did these problems, such as [PTSD SYMPTOMS], last?	E. Duration of the disturbance (symptoms in criteria B, C, and D) is more than 1 month.	F62

If **F62** is "–" (i.e., duration is 1 month or less), go to **F65**, page 77.

F63		F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.	F63

If **F63** is "–" (i.e., disturbance is not clinically significant), go to **F65**, page 77.

F64	IF UNKNOWN: Have you had [SYMPTOMS CODED "+"] in the past month?	**CRITERIA A, B, C, D, E, AND F ARE "+"** (MAKE A DIAGNOSIS OF 309.81 POSTTRAUMATIC STRESS DISORDER)	F64

OTHER ANXIETY DISORDERS

F65	IF PANIC DISORDER NOT ALREADY DIAGNOSED: Were you ever afraid of going out of the house alone, being alone, being in a crowd, standing in a line, or traveling on buses or trains?	*IF YES, Consider:* **300.22 Agoraphobia Without History of Panic Disorder** (DSM-IV pages 404–405). Agoraphobia related to the fear of developing panic-like symptoms (e.g., dizziness or diarrhea) without a history of Panic Disorder	F65
F66	Is there anything that you have been afraid to do or felt uncomfortable doing in front of other people, such as speaking, eating, or writing?	*IF YES, Consider:* **300.23 Social Phobia** (DSM-IV pages 416–417). Marked and persistent fear of one or more social (or performance) situations that interferes significantly with the person's normal routine, occupational functioning, social activities or relationships (or there is marked distress about having the phobia)	F66
F67	Are there any other things that you have been especially afraid of, such as flying, seeing blood, getting a shot, heights, closed places, or certain kinds of animals or insects?	*IF YES, Consider:* **300.29 Specific Phobia** (DSM-IV pages 410–411). Marked and persistent fear that is excessive and unreasonable that interferes significantly with the person's normal routine, occupational functioning, social activities, or relationships (or there is marked distress about having the phobia)	F67
F68	In the past 6 months, have you been particularly nervous or anxious?	*IF YES, Consider:* **300.02 Generalized Anxiety Disorder** (DSM-IV pages 435–436). Excessive anxiety and worry more days than not for at least 6 months, not due to a general medical condition or substance, causing significant distress or impairment. *NOTE:* A diagnosis of Generalized Anxiety Disorder requires that the anxiety occur at times other than exclusively during a Mood or Psychotic Disorder.	F68

ANXIETY DISORDER NOT OTHERWISE SPECIFIED

F69	Clinically significant anxiety or phobic avoidance that does not meet criteria for any specific Anxiety Disorder, Adjustment Disorder With Anxiety, or Adjustment Disorder With Mixed Anxiety and Depressed Mood	F69

If **F69** is "–" (i.e., absence of clinically significant anxiety symptoms not meeting criteria for a specific Anxiety Disorder), go to **F72,** page 78 *(Somatoform Disorders).*

F70 Just before this began, were you physically ill?

Just before this began, were you taking any medications?

IF YES: Any change in the amount you were taking?

Just before this began, were you drinking or taking any street drugs?

If there is any indication that the anxiety symptoms may be secondary (i.e., a direct physiological consequence of a general medical condition or substance), go to page 81 and return here to make rating of "–" or "+."

Not due to the direct physiological effects of a substance (e.g., a drug of abuse, medication) or to a general medical condition **F70**

Etiological general medical conditions include hyper- and hypothyroidism, hypoglycemia, hyperparathyroidism, pheochromocytoma, congestive heart failure, arrhythmias, pulmonary embolism, chronic obstructive pulmonary disease, pneumonia, hyperventilation, vitamin B_{12} deficiency, porphyria, central nervous system neoplasms, vestibular dysfunction, and encephalitis.

Etiological substances include intoxication with central nervous system stimulants (e.g., cocaine, amphetamines, caffeine) or cannabis, hallucinogens, PCP, or alcohol, or withdrawal from central nervous system depressants (e.g., alcohol, sedatives, hypnotics).

If **F70** is "–" (i.e., due to a substance or general medical condition), go to **F72,** below.

F71 IF UNKNOWN: Have you had [ANXIETY SYMPTOMS] in the past month?

MAKE A DIAGNOSIS OF 300.0 ANXIETY DISORDER NOT OTHERWISE SPECIFIED **F71**

SOMATOFORM DISORDERS

F72 Over the past several years, what has your physical health been like?

How often have you had to go to a doctor because you weren't feeling well? (What for?)

IF OFTEN: Was the doctor always able to find out what was wrong? (Tell me about that.) Were there times when the doctor said there was nothing wrong but you were still convinced that something was wrong?)

If there have been unexplained physical complaints, consider: **F72**

300.81 Somatization Disorder (DSM-IV pages 449–450). At least eight unexplained physical complaints occurring over a period of several years, beginning before age 30 ***OR***

300.82 Undifferentiated Somatoform Disorder (DSM-IV pages 451–452). Unexplained physical complaints that do not meet criteria for Somatization Disorder

F73	Do you worry much about your physical health? Does your doctor think you worry too much?	*IF YES, Consider:* **300.7 Hypochondriasis** (DSM-IV page 465). Preoccupation with fears of having a serious illness that persist despite appropriate medical evaluation and assurance	F73
F74	Some people are very bothered by the way they look. Is this a problem for you?	*IF YES, Consider:* **300.7 Body Dysmorphic Disorder** (DSM-IV page 468). Preoccupation with an imagined defect in appearance	F74

EATING DISORDERS

F75	Have you ever had a time when you weighed much less than other people thought you ought to weigh?	*IF YES, Consider:* **307.1 Anorexia Nervosa** (DSM-IV pages 544–545). Refusal to maintain body weight at or above a minimally normal weight, accompanied by an intense fear of becoming fat	F75
F76	Have you often had times when your eating was out of control? Tell me about those times.	*IF YES, Consider:* **307.51 Bulimia Nervosa** (DSM-IV pages 549–550). Recurrent episodes of binge eating with inappropriate compensatory behavior	F76

CONTINUE WITH THE REMAINDER OF THE SCID ONLY IF THERE IS A CURRENT DISTURBANCE AND IT DOES NOT MEET THE CRITERIA FOR A SPECIFIC AXIS I DSM-IV DISORDER, OTHERWISE **END SCID.**

ADJUSTMENT DISORDERS

CRITERIA FOR ADJUSTMENT DISORDERS

F77	IF UNKNOWN: Did anything happen to you just before [ONSET OF CURRENT DISTURBANCE]? IF YES: Do you think that [STRESSOR] had anything to do with your getting [SYMPTOMS]?	A. The development of emotional or behavioral symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s)	F77

If **F77** is "–" (i.e., no symptoms in response to a stressor), **END SCID.**

F78 (What effect have [SYMPTOMS] had on you and your ability to do things? How upset were you? Has it made it hard for you to do your work or be with friends?)

B. These symptoms or behaviors are clinically significant as evidenced by either of the following: **F78**

(1) marked distress that is in excess of what would be expected from exposure to the stressor

(2) significant impairment in social or occupational (academic) functioning.

If **F78** is "–" (i.e., symptoms not clinically significant), **END SCID.**

F79 (Have you had this kind of reaction many times before?)

(Were you having [SYMPTOMS] even before [STRESSOR] happened?)

C. The stress-related disturbance does not meet the criteria for another specific Axis I disorder and is not merely an exacerbation of a preexisting Axis I or Axis II disorder. **F79**

If **F79** is "–" (i.e., exacerbation of preexisting disorder), **END SCID.**

F80 IF UNKNOWN: Did someone close to you die just before [ONSET OF CURRENT DISTURBANCE]?

D. The symptoms do not represent Bereavement. **F80**

If **F80** is "–" (i.e., represents Bereavement), **END SCID.**

F81 (How long has it been now since [STRESSOR AND COMPLICATIONS ARISING FROM STRESSOR] were over?)

E. Once the stressor (or its consequences) has terminated, the symptoms do not persist for more than an additional 6 months. **F81**

If **F81** is "–" (i.e., symptoms persisted 6 months beyond termination of stressor), make the appropriate Not Otherwise Specified diagnosis (i.e., go to **D17,** page 52, if depressive symptoms or **F69,** page 77, if anxiety symptoms).

F82 **Make diagnosis of Adjustment Disorder based on predominant symptoms:** **F82**

309.0 Adjustment Disorder With Depressed Mood
309.24 Adjustment Disorder With Anxiety
309.28 Adjustment Disorder With Mixed Anxiety and Depressed Mood
309.3 Adjustment Disorder With Disturbance of Conduct
309.4 Adjustment Disorder With Mixed Disturbance of Emotions and Conduct
309.9 Unspecified Adjustment Disorder

END SCID

CONSIDER ETIOLOGICAL ROLE OF A GENERAL MEDICAL CONDITION OR SUBSTANCE USE

If panic attacks, obsessions, compulsions, or other anxiety symptoms are not temporally associated with a general medical condition, go to **F87**, page 83 (*Substance-Induced Anxiety Disorder*).

ANXIETY DISORDER DUE TO A GENERAL MEDICAL CONDITION

F83 CODE BASED ON INFORMATION ALREADY OBTAINED

F84 Do you think your [PANIC ATTACKS/OBSESSIONS/COMPULSIONS/ANXIETY SYMPTOMS] were in any way related to your [COMORBID GENERAL MEDICAL CONDITION]?

IF YES: Tell me how.

(Did the [PANIC ATTACKS/OBSESSIONS/COMPULSIONS/ANXIETY SYMPTOMS] start or get much worse only after [COMORBID GENERAL MEDICAL CONDITION] began?)

IF YES AND GENERAL MEDICAL CONDITION HAS RESOLVED: Did the [PANIC ATTACKS/OBSESSIONS/COMPULSIONS/ANXIETY SYMPTOMS] get better once the [COMORBID GENERAL MEDICAL CONDITION] got better?

CRITERIA FOR ANXIETY DISORDER DUE TO A GENERAL MEDICAL CONDITION

A. Prominent anxiety, panic attacks, or obsessions or compulsions predominate in the clinical picture. **F83**

B/C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition, and the disturbance is not better accounted for by another mental disorder (e.g., Adjustment Disorder With Anxiety in which the stressor is a serious general medical condition). **F84**

If **F84** is "–" (general medical condition not etiological), go to **F87**, page 83 (*Substance-Induced Anxiety Disorder*).

F85 IF UNCLEAR: How much did [PANIC ATTACKS/OBSESSIONS/COMPULSIONS/ANXIETY SYMPTOMS] interfere with your life?

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. F85

F86 IF UNKNOWN: Have you had [ANXIETY SYMPTOMS] in the past month?

CRITERIA A, B/C, AND E ARE "+" (MAKE A DIAGNOSIS OF 293.89 ANXIETY DISORDER DUE TO A GENERAL MEDICAL CONDITION) F86

If panic attacks, obsessions, compulsions, or other anxiety symptoms are not temporally associated with substance use, return to disorder being evaluated:
F18 for Panic Disorder (page 67)
F37 for Obsessive-Compulsive Disorder (page 72)
F70 for Anxiety Disorder Not Otherwise Specified (page 78)

SUBSTANCE-INDUCED ANXIETY DISORDER

F87 CODE BASED ON INFORMATION ALREADY OBTAINED

F88 IF NOT KNOWN: When did the [PANIC ATTACKS/OBSESSIONS/COMPULSIONS/ ANXIETY SYMPTOMS] begin? Were you already using [SUBSTANCE] or had you just stopped or cut down your use?

CRITERIA FOR SUBSTANCE-INDUCED ANXIETY DISORDER

A. Prominent anxiety, panic attacks, or obsessions or compulsions predominate in the clinical picture. **F87**

B. There is evidence from the history, physical examination, or laboratory findings that either (1) the symptoms in criterion A developed during or within a month of Substance Intoxication or Withdrawal or (2) medication use is etiologically related to the disturbance. **F88**

If **F88** is "–" (i.e., not etiologically related to a substance), return to disorder being evaluated:
F18 for Panic Disorder (page 67)
F37 for Obsessive-Compulsive Disorder (page 72)
F70 for Anxiety Disorder Not Otherwise Specified (page 78)

F89 Do you think your [PANIC ATTACKS/ OBSESSIONS/COMPULSIONS/ ANXIETY SYMPTOMS] are in any way related to your [SUBSTANCE USE]?

IF YES: Tell me how.

ASK ANY OF THE FOLLOWING QUESTIONS AS NEEDED TO RULE OUT NONSUBSTANCE ETIOLOGY

IF UNKNOWN: Which came first, the [SUBSTANCE USE] or the [PANIC ATTACKS/OBSESSIONS/ COMPULSIONS/ANXIETY SYMPTOMS]?

IF UNKNOWN: Have you had a period of time when you stopped using [SUBSTANCE]?

IF YES: After you stopped using [SUBSTANCE] did the [PANIC ATTACKS/ANXIETY SYMPTOMS] get better?

C. The disturbance is not better accounted for by an Anxiety Disorder that is not substance induced. Evidence that the symptoms are better accounted for by an Anxiety Disorder that is not substance induced might include: **F89**

(1) the anxiety symptoms precede the onset of the substance use (or medication use)

(2) the anxiety symptoms persist for a substantial period of time (e.g., about a month) after the cessation of acute withdrawal or severe intoxication

F89 (cont'd)

IF UNKNOWN: How much of [SUBSTANCE] were you using when you began to have [PANIC ATTACKS/ OBSESSIONS/ COMPULSIONS/ANXIETY SYMPTOMS]?

IF UNKNOWN: Have you had any other episodes of [PANIC ATTACKS/ OBSESSIONS/ COMPULSIONS/ANXIETY SYMPTOMS]?

IF YES: How many? Were you using [SUBSTANCE] at those times?

(3) the anxiety symptoms are substantially in excess of what would be expected given the type or amount of the substance used or the duration of use

(4) there is other evidence suggesting the existence of an independent non-substance-induced Anxiety Disorder (e.g., a history of recurrent non-substance-related panic attacks)

F89 (cont'd)

If **F89** is "–" (i.e., the disturbance is better accounted for by a non-substance-induced Anxiety Disorder), return to disorder being evaluated:
F18 for Panic Disorder (page 67)
F37 for Obsessive-Compulsive Disorder (page 72)
F70 for Anxiety Disorder Not Otherwise Specified (page 78)

F90

IF UNKNOWN: How much did [PANIC ATTACKS/OBSESSIONS/COMPULSIONS/ ANXIETY SYMPTOMS] interfere with your life?

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

F90

If **F90** is "–" (not clinically significant), return to disorder being evaluated:
F18 for Panic Disorder (page 67)
F37 for Obsessive-Compulsive Disorder (page 72)
F70 for Anxiety Disorder Not Otherwise Specified (page 78)

F91

IF UNKNOWN: Have you had [ANXIETY SYMPTOMS] in the past month?

CRITERIA A, B, C, AND E ARE "+" (MAKE A DIAGNOSIS OF SUBSTANCE-INDUCED ANXIETY DISORDER)

F91

Return to disorder being evaluated:
F18 for Panic Disorder (page 67)
F37 for Obsessive-Compulsive Disorder (page 72)
F70 for Anxiety Disorder Not Otherwise Specified (page 78)

APPENDIX F

Permission Letters

তারিখ: ২০.১২.২০২৫ইং

বরাবর

তত্ত্বাবধায়ক

যশোর মেডিকেল কলেজ, যশোর।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

২০/১২/২৫

রেকর্ড কিপার
২৫০ শয্যা বিশিষ্ট জেনারেল হাসপাতাল,
যশোর।

তারিখ: ২৩. ১২. ১৫ইং

বরাবর

পরিচালক,
নিউমার্কেট বক্ষব্যাধি ও প্রেসমার সেনটার,
ঢাকা-১২০০।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

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অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

অনুমতি দেয়া হল।
23-12-15
ডাঃ মোঃ সামছুজ্জোহা
সিনিয়র কনসালটেন্ট
বক্ষব্যাধি হাসপাতাল, খুলনা।

নিবেদক	তত্ত্বাবধায়ক
নাঈমা জান্নাত	কামাল উদ্দীন আহমেদ চৌধুরী
এম.ফিল (২য় বর্ষ)	সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ	চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়	ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১	মোবাইল: ০১৭১৪০৭৮৭৪৭

তারিখঃ ০৫.০৬.১৬ ইং

বরাবর

কনসালটেন্ট,
বক্ষব্যাধি ক্লিনিক,
যশোর – ৭৪০০।

মাধ্যমঃ যথাযথ কর্তৃপক্ষ।

বিষয়ঃ এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক	তত্ত্বাবধায়ক
নাঈমা জান্নাত	কামাল উদ্দীন আহমেদ চৌধুরী
এম.ফিল (২য় বর্ষ)	সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ	চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়	ঢাকা বিশ্ববিদ্যালয়
মোবাইলঃ ০১৮১৫৪০৩৯৬১	মোবাইলঃ ০১৭১৪০৭৮৭৪৭

তারিখ: 02/02/2026ইং

বরাবর

পরিচালক,
প্যাজমা-সিওপিডি সেন্টার,
সার্কিট হাউজের সামনে, রংপুর।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

অনুমোদন করা হল।

2/02/26

ডাঃ এস, এম, রওশন আলম
এম.বি.বি.এস, সিজিটি (বিক্ষব্যাধি), সিসিডি (বারডেম)
এফ.সি.পি.এস, ইউরোলজি, ঢাকা ও সিপিএস ইনস্টিটিউট (সিলেক্ট)
সহকারী অধ্যাপক, রংপুর মেডিকেল কলেজ
চেম্বার ঃ রংপুর সার্কিট হাউজের সামনে

রংপুর চিকিৎসা [illegible]
নিবেদন সংখ্যা 28 তাং 07/2/16
পরিচালক ..... উপ-পরিচালক .....
সহঃ পরিচালক সহঃ পরিচালক
(প্রশাসন) (স্টোর)
প্রশাসনিক কর্মকর্তা ..... এ্যাসি সহকারী .....
পত্র গ্রহণকারী .....

তারিখ: ০৩/০২/১৬ ইং

বরাবর

পরিচালক
রংপুর মেডিকেল কলেজ, রংপুর।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

তারিখ: ৩০.০২.২০২৬ইং

বরাবর
ডাঃ রবীন্দ্র চন্দ্র মিত্র,
প্রোজেক্ট ডিরেক্টর ও বক্ষব্যাধি বিশেষজ্ঞ,
ফিনস্যাসটেক, মালেকা নার্সিং হোম,
বগুড়া।
মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

অনুমতি প্রদান করা হলো।
৩০/০২/২৬
ডাঃ রবীন্দ্র চন্দ্র মিত্র
প্রজেক্ট ডিরেক্টর (বক্ষব্যাধি), (নিমিত)
বক্ষব্যাধি ক্লিনিক, বগুড়া।

তারিখ: ৩১.০১.২০২৫

বরাবর

পরিচালক,
শহীদ জিয়াউর রহমান মেডিকেল কলেজ,
বগুড়া।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

Received

তারিখ: ২৯.০২.২০১৬ইং

বরাবর
ডাঃ মোঃ আবু হাসানাত,
এ্যাজমা, বক্ষব্যাধি ও মেডিসিন বিশেষজ্ঞ,
সহকারী অধ্যাপক ও বিভাগীয় প্রধান, রেসপিরেটরি মেডিসিন,
কুমিল্লা মেডিকেল কলেজ, কুমিল্লা,
কনসালটেন্ট, কুমিল্লা ট্রমা সেন্টার।
মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

ডাঃ মোঃ আবু হাসানাত
এম,বি,বি,এস (ঢাকা) বি,সি,এস (স্বাস্থ্য), এম,ডি (চেষ্ট)
এ্যাজমা, বক্ষব্যাধি ও মেডিসিন বিশেষজ্ঞ
সহকারী অধ্যাপক ও বিভাগীয় প্রধান
রেসপিরেটরি মেডিসিন
কুমিল্লা মেডিকেল কলেজ ও হাসপাতাল, কুমিল্লা।

পরিচালক
কুমিল্লা মেডিকেল কলেজ হাসপাতাল, কুমিল্লা।

তারিখ: ২০.০২.২০২৫ইং

বরাবর

পরিচালক,
কুমিল্লা মেডিকেল কলেজ হাসপাতাল,
কুমিল্লা।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

(Md. Alamgir Hossin)
Administrative Officer
Comilla Medical College
Comilla.

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

তারিখ: 27.02.2016 ইং

বরাবর

ডাঃ মোঃ সিদ্দিকুর রহমান,
প্রাক্তন, সিনিয়র রেজিস্ট্রার (মেডিসিন) বিএসএমএমইউ,
বেইচ আর এ্যাজমা কেয়ার,
বরিশাল।
মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক	তত্ত্বাবধায়ক
নাঈমা জান্নাত	কামাল উদ্দীন আহমেদ চৌধুরী
এম.ফিল (২য় বর্ষ)	সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ	চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়	ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১	মোবাইল: ০১৭১৪০৭৮৭৪৭

অনুমতি দেয়া গেল।

29/2/16

DR. MD. SIDDIQUR RAHMAN
MBBS. DTCD. FCCP (USA)
ICTC (IUATLD), FWHO (TANZANIA)
ASSOCIATE PROFISSOR
RESPIRATORY MEDICINE
SBMC, BARISAL.

তারিখ: 27.02.2016 ইং

বরাবর

পরিচালক,
শের-ই-বাংলা মেডিকেল কলেজ ও হাসপাতাল,
বরিশাল,

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

ডাঃ এস, এম, সিরাজুল ইসলাম
পরিচালক
শের-ই-বাংলা মেডিকেল কলেজ
হাসপাতাল, বরিশাল।

তারিখ: ২৯/০৬/২০১৬ইং

বরাবর

পরিচালক,
সিলেট বেগম বাজি ওসমানী মেডিকেল কলেজ হাসপাতাল,
সিলেট।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

গ্রহণকারী
২৯.৬.১৬
সিলেট এম.এ.জি. ওসমানী মেডিকেল
কলেজ হাসপাতাল, সিলেট।

তারিখ: 20.03.2016 ইং

বরাবর

ডাঃ এম. দেলোয়ার হোসেন,
প্রোজমা; বক্ষব্যাধি, মেডিসিন বিশেষজ্ঞ,
সহযোগী অধ্যাপক, রেসপিরেটরী মেডিসিন,
সিলেট এম.এ.জি ওসমানী মেডিকেল কলেজ হাসপাতাল,
চেম্বার: ইবনে সিনা হাসপাতাল সিলেট।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

Approved
Hossain
20/3/16
Dr. M. Delwar Hossain
MBBS, DTCD,MD (Chest Diseases
Asst. Prof. Respiratory Medicine
M.A.G. Osmani Medical College, Sylhet

তারিখ: ১৬.০৪.২০১৬ ইং

বরাবর

আর. আই. দেবনাথ,
প্রোফেসর, বক্ষব্যাধি ও শ্বাসরোগ বিশেষজ্ঞ,
সহকারী অধ্যক্ষ,
ময়মনসিংহ মেডিকেল কলেজ ও হাসপাতাল,
কনসালটেন্ট, লিবার্টি হাসপাতাল।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

Received
17/4/16
DR R C DEBNATH
(Chest Medicine)
Professor (Cardiology)
Mymensingh Medical College Hospital.

তারিখ: ২৩.০৪.২০১২

বরাবর

বহির্বিভাগ ইনচার্জ,
বক্ষঃব্যাধি ক্লিনিক,
ময়মনসিংহ।

মাধ্যমঃ যথাযথ কর্তৃপক্ষ।

বিষয়ঃ এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

তারিখ: ২৯.০৪.২০১৬ইং

বরাবর
ডাঃ এম দেলোয়ার হোসেন,
প্রফেসর, পালমোনারী ও রক্ষ্যাধি বিভাগ,
সহযোগী অধ্যাপক, সিলেট এম.এ.জি ওসমানী মেডিকেল কলেজ,
কনসালটেন্ট, ইনেন-জিনা ডায়াগনস্টিক এন্ড কনসালটেন্সি সেন্টার,
মাধ্যম: যথাযথ কর্তৃপক্ষ। চামেলীবাগ, ঢাকা।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

Hossain 21.4.16
(Dr. Md. Delowar Hossain)
Asst. Prof. Respiratory Medicine

গনপ্রজাতন্ত্রী বাংলাদেশ সরকার
পরিচালকের দপ্তর, জাতীয় বক্ষব্যাধি ইনস্টিটিউট ও হাসপাতাল
মহাখালী, ঢাকা - ১২১২।

স্মারক নং-জাববইহা/একা/২০১৬/৫৭১ তারিখঃ ৭/৩/১৬

প্রতি,

কামাল উদ্দীন আহমেদ চৌধুরী
তত্ত্বাবধায়ক ও সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়

বিষয় ঃ এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রদান প্রসঙ্গে।

জনাব,

আপনার অবগতির জন্য জানানো যাচ্ছে যে, আপনার প্রতিষ্ঠানের চিকিৎসা মনোবিজ্ঞান বিভাগের এম.ফিল গবেষক নাঈমা জান্নাত কে তাহার "Mental Health Problems Among Asthma Patients" শীর্ষক গবেষণার জন্য আগামী ১০/০৩/২০১৬ ইং হইতে ৩০/০৫/২০১৬ ইং তারিখ পর্যন্ত জাতীয় বক্ষব্যাধি ইনস্টিটিউট ও হাসপাতাল এবং জাতীয় অ্যাজমা সেন্টার এর বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহের অনুমতি প্রদান করা হইল।

৭/৩/১৬
(অধ্যাপক ডাঃ মোঃ রাশিদুল হাসান)
পরিচালক ও অধ্যাপক
জাতীয় বক্ষব্যাধি ইনস্টিটিউট ও হাসপাতাল
মহাখালী, ঢাকা - ১২১২।

স্মারক নং-জাববইহা/একা/২০১৬/৫৭১(৩) তারিখঃ ৭/৩/১৬

অনুলিপি অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহনের জন্য প্রেরন করা হইলঃ

১. ডাঃ মোঃ নইমুল হক, সহযোগী অধ্যাপক, জাববইহা, মহাখালী, ঢাকা-১২১২।
২. আরপি/আরএস, জাববইহা, মহাখালী, ঢাকা-১২১২।
   নাঈমা জান্নাত, এম.ফিল গবেষক, চিকিৎসা মনোবিজ্ঞান বিভাগ, ঢাকা বিশ্ববিদ্যালয়।
৩. অফিস কপি।

৭/৩/১৬

৭/৩/১৬
(অধ্যাপক ডাঃ মোঃ রাশিদুল হাসান)
পরিচালক ও অধ্যাপক
জাতীয় বক্ষব্যাধি ইনস্টিটিউট ও হাসপাতাল
মহাখালী, ঢাকা - ১২১২।

৭/৩/১৬

তারিখ: ৩০.০৫.১৫ ইং

বরাবর
ডাঃ আব্দুস শাকুর খান,
এফসিপিএস (মেডিসিন), এমডি (চেস্ট),
বক্ষব্যাধি ও মেডিসিন বিশেষজ্ঞ,
আনোয়ার খান মডার্ন হসপিটাল লিঃ, ঢাকা।

মাধ্যম: যথাযথ কর্তৃপক্ষ।

বিষয়: এম.ফিল গবেষণার তথ্য সংগ্রহের অনুমতি প্রসঙ্গে।

জনাব,

আমি ঢাকা বিশ্ববিদ্যালয়ের চিকিৎসা মনোবিজ্ঞান বিভাগের একজন এম.ফিল গবেষক। আমার গবেষণার শিরোনাম "Mental Health Problems Among Asthma Patients"। এই গবেষণার জন্য আপনার প্রতিষ্ঠানের বহির্বিভাগে আগত অ্যাজমা রোগীদের সম্পর্কে তথ্য সংগ্রহ করা প্রয়োজন। এই গবেষণা মানসিক স্বাস্থ্য সেবায় গুরুত্বপূর্ণ সহায়ক হতে পারে বলে আমি মনে করি। আমি নিশ্চয়তা দিচ্ছি যে, সংগৃহীত প্রতিটি ব্যক্তিগত তথ্য গোপন থাকবে এবং তা কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। কোথাও কারও পরিচয় প্রকাশ করা হবে না।

অতএব, আমাকে উল্লেখিত গবেষণার তথ্য সংগ্রহের সুযোগ দিয়ে বাধিত করবেন।

নিবেদক

নাঈমা জান্নাত
এম.ফিল (২য় বর্ষ)
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৮১৫৪০৩৯৬১

তত্ত্বাবধায়ক

কামাল উদ্দীন আহমেদ চৌধুরী
সহযোগী অধ্যাপক
চিকিৎসা মনোবিজ্ঞান বিভাগ
ঢাকা বিশ্ববিদ্যালয়
মোবাইল: ০১৭১৪০৭৮৭৪৭

Recommended

Dr. Abdus Shakur Khan
MBBS, MCPS (Medicine), MD (Chest)
Chest & Medicine Specialist
Dhaka, Bangladesh.

APPENDIX G

Places of Data Collection

No.	Places
1	Jessore Medical College and Hospital, Jessore
2	Chest Disease Clinic, Jessore
3	New Market Chest Diseases and Asthma Center, Jessore
4	Rangpur Medical College and Hospital, Rangpur
5	Asthma-COPD Center, Rangpur
6	Shahid Ziaur Rahman Medical College and Hospital, Bogra
7	Maleka Nursing Home, Bogra
8	Sher-E-Bangla Medical College and Hospital, Barisal
9	H. R. Asthma Care, Barisal
10	Sylhet M. A. G. Osmani Medical College and Hospital, Sylhet
11	Ibn Sina Hospital, Sylhet
12	Comilla Medical College and Hospital, Comilla
13	Comilla Trauma Center, Comilla
14	Chest Disease Clinic, Mymensingh
15	Liberty Hospital, Mymensingh
16	National Institute of Diseases of the Chest and Hospital, Dhaka
17	Ibn Sina D Lab and Consultation Center, Doyagonj, Dhaka
18	Anwar Khan Modern Hospital Limited, Dhaka

APPENDIX H

Names of Data Collectors

No.	Name	Profession	Division
1	Sabina Islam	Assistant Clinical Psychologist	Rangpur
2	Jinat Jahan	Trainee Educational Psychologist	Dhaka
3	Md. Barkatullah An-Nurany	Journalist	Dhaka
4	Jesmin Akter	Lecturer of Psychology	Mymensingh
5	Shamima Khatun	Trainee Psychotherapist	Mymensingh
6	Mst. Fatema Khatun	B.Sc. (Hons) Student	Khulna
7	Md. Tazul Islam	M.A. Student	Sylhet
8	Md. Rabiul Islam	B.Sc. (Hons) Student	Barisal
9	Azizul Hakim Rumon	Camera Journalist	Rajshahi
10	Md. Abul Hossain	B.A. (Hons) Student	Chittagong