"THE ROLE OF CHILDHOOD ADVERSITIES IN CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER- A COMPARATIVE STUDY"

Dissertation submitted for partial fulfillment of the rules and regulations

DOCTOR OF MEDICINE

BRANCH - XVIII (PSYCHIATRY)

THE TAMILNADU DR.MGR MEDICAL UNIVERSITY

CHENNAI

TAMIL NADU

APRIL 2017

CERTIFICATE

This is to certify that the dissertation titled, **"THE ROLE OF CHILDHOOD ADVERSITIES ON CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER- A COMPARATIVE STUDY"** is the bonafide work of **Dr. SUDHANTHIRA DEVI.R.,** submitted in partial fulfilment of the requirements for M.D. Branch-XVIII [Psychiatry] examination of The Tamilnadu Dr. M.G.R. Medical University, to be held in April 2016.

The Director,
Institute of mental health
Chennai-10.

The Dean,
Madras Medical College
Chennai-3.

CERTIFICATE OF GUIDE

This is to certify that the dissertation titled, **"THE ROLE OF CHILDHOOD ADVERSITIES IN CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER - A COMPARATIVE STUDY"** is the bonafide work of **Dr. SUDHANTHIRA DEVI .R. ,** done under my guidance submitted in partial fulfilment of the requirements for M.D. Branch-XVIII [Psychiatry] examination of the The Tamilnadu Dr. M.G.R. Medical University, to be held in April 2016.

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DECLARATION

I **Dr. SUDHANTHIRA DEVI.R.,** solemnly declare that the dissertation titled, **"THE ROLE OF CHILDHOOD ADVERSITIES IN CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER - A COMPARATIVE STUDY"** is a bonafide work done by me at the Institute of Mental Health, Chennai, during the period from March 2016 – August 2016 under the guidance and supervision of **Dr. A. KALAICHELVAN M.D., D.P.M.** Professor of psychiatry, Madras Medical College.

The dissertation is submitted to the The Tamilnadu Dr. M.G.R. Medical University towards partial fulfilment of requirement for M.D. Branch XVIII[Psychiatry] examination.

Place :

Date : **Dr. SUDHANTHIRA DEVI.R.**

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CONTENTS

ABBREVATIONS

Alcohol use disorder identification test	AUDIT
Bipolar affective disorder	BPAD
Childhood trauma questionnaire	CTQ
Childhood adversity	CA
Diagnostic and statistical manual of mental disorder-V	DSM -V
Global assessement of functioning	GAF
Hamilton depression rating scale	HAM-D
Post Traumatic Stress Disorder	PTSD
Young’s mania rating scale	YMRS

INSTITUTIONAL ETHICS COMMITTEE
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CERTIFICATE OF APPROVAL

To
Dr.Sudhanthira Devi.R.
II Year Post Graduate in M.D. Psychiatry
Institute of Mental Health
Madras Medical College
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Dear Sudhanthira Devi.R.,

The Institutional Ethics Committee has considered your request and approved your study titled **"THE ROLE OF CHILDHOOD ADVERSITIES IN CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER –A COMPARATIVE STUDY " - NO.13032016.**

The following members of Ethics Committee were present in the meeting hold on **01.03.2016** conducted at Madras Medical College, Chennai 3

1.Dr.C.Rajendran, MD.,	:Chairperson
2.Dr.R.Vimala,MD.,Dean,MMC,Ch-3	:Deputy Chairperson
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11.Tmt.Arnold Saulina, MA.,MSW.,	:Social Scientist

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

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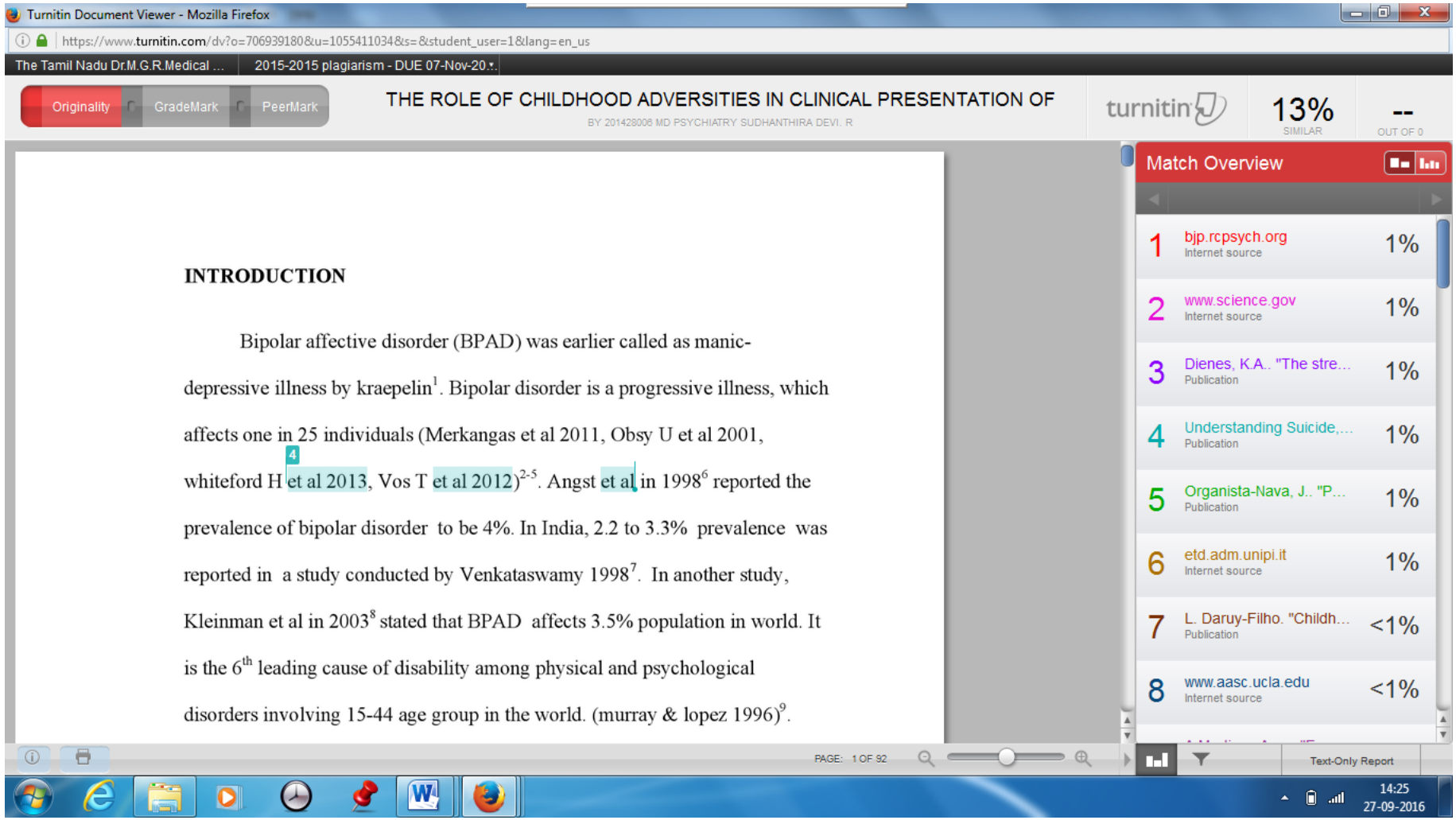
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INTRODUCTION
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INTRODUCTION

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The demographic characteristics of the bipolar disorder are lower income, low education, unemployment, and not being married (Kessler et al 1997, Grant et al 2005, merikangas et al 2007)[10-12]

It is a mood disorder having a cyclical episodic course of extreme fluctuations in mood ranging from mania to depression over a long-term period (Helen L Fisher and Georgina M Hosang 2010)[13]. There are different types of BPAD. BPAD I is the most severe type , characterized by at least one episode of mania and major depressive episodes in life time. BPAD II is the other subtype, characterized by current or past episode of hypomania with current or past episode of major depressive disorder (DSM-V)[14].

In general type I variant can lead to serious impairment. Bipolar affective disorder type II is less commonly diagnosed in clinical settings

1

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In general type I variant can lead to serious impairment. Bipolar affective disorder type II is less commonly diagnosed in clinical settings

because most patients are treated for depression rather than hypomania . This is due to the fact that hypomania is not recognized as a problem as most of the patients will be productive. 5%-15% Patients who initially presented as hypomania will turn to full blown mania in course of time (Shelton 2003) [15]. Rapid cyclers are those who have 4 or more episodes in a year.

Women and men are equally affected in BPAD, in contrast with unipolar depression in which women were more commonly affected. It can develop at any age , usually expressed between 17 and 31years . BPAD with age of onset as early have been reported as six years of age (weissman et al1996) [16]. This disorder can present with or without psychotic symptoms.

It is diagnosed with the help of DSM V or ICD-10 , BPAD can have shifts in mood from mania, hypomania to depression with inter episode period called euthymia .

For practical purpose DSM V and ICD-10 [17] defines remission as an interval of 8 weeks of complete symptomatic remission in between episodes .

Various clinical definition and clinical rating scales were used to assess the course of the disease when they are under treatment. According to American Psychiatric Association (APA)(2002) Remission is defined as “a complete return to baseline level of functioning and virtual lack of symptoms”. This in turn can be measured by clinical rating scales. For young mania rating scale (YMRS), a score of ≤12 is defined as remission in some literatures and in some less than 7. Hamilton Rating scale for depression (HAM-D) a score of

≤7 is considered as remission. Robert MA Hirschfeld, MD in 2007[18] in his paper "Remission was defined as absence or minimal symptoms of both mania and depression for at least 1 week. Sustained remission requires at least eight consecutive weeks of remission, and perhaps as many as 12 weeks" in adults with YMRS SCOREs ≤ 8; MADRS≤ 10;OR HAM-D≤7 .

Even though the BPAD patient is in remission or euthymic period and under treatment, when compared with the control they have impaired attention memory and executive functions. This in turn leads to social and occupational impairment on one hand and on the other leads to reduced insight , poor adherence to treatment and increased risk of relapse (Taj & Padmavathi 1989)[19.]

Because of the high prevalence and incidence of BPAD (Merikangas et al 2011)[2], chronicity of symptoms(Judd et al , 2002, 2003)[20,21], and psychosocial impairment (Judd et al ,2005)[22], it is important to know in detail about the etiological causes, course, treatment, outcome , prognosis of bipolar disorder.

In search of finding the etiological factors in the development and varied clinical presentation of bipolar disorder , biological researchers mostly focus on the biological factors and over look the role of psychosocial influences such as stress in bipolar disorder. It is now realized that biological factors cannot entirely account for variability in the course and presentation of bipolar

disorder. This lead to the increased focus in the psychosocial stressors like stressful life events. (Kimberly A. Dienes 2006)[23].

Both onset and course of bipolar disorder was affected by Psychosocial stress (Johnson and Robert 1995)[24] but their relationship is yet to be fully understood.

One of the main reason for poor understanding of the disease , is under exploration of environment aspects of the disease. Childhood adversity , among the environmental factors plays an important role in the bipolar affective disorder (Etain et al 2008)[25.]

Early environmental stressors plays an important role in affective relapse (Bryer et al 1987)[26]. There have been limited studies supporting this causation, despite evidence from twin studies indicating that environmental factors account for approximately one quarter to one third of the population variance in bipolar disorder(Barnett et al 2009)[27.]

Even though the prevalence of childhood maltreatment is high ,the researches on childhood maltreatment are few. A study conducted by Ranchna devi in 2013[28] with 140 general population (70poeple below poverty line; 70 above poverty line) found that childhood trauma is more common in below poverty line than the above poverty line . Similarly female were more prone for sexual abuse, emotional neglect and males were prone for physical neglect.

In a study conducted by the ministry of women and child development, government of India 2007, India is home for nearly 19% of world's childs population. It reports that nearly 23.3% face physical abuse; 26.5% face emotional abuse. Sexual abuse was faced by more than 49.9% of the children, but mostly unreported . (kacker,2007)[29.]

In a country like India where the prevalence of childhood abuse is high, the need for research in impact of childhood adversity in the psychiatric illness is more.

Even though in this context many studies are available in western literature, only few studies are available in Indian literature regarding childhood trauma and bipolar disorder. This effort is in that direction, to identify the factors that influence the development and course of bipolar disorder which in turn helps in early detection, prevention and treatment of bipolar affective disorder.

REVIEW OF LITERATURE

BIPOLAR DISORDER:

In 1899, Emil Krapelin described manic – depressive disorder, which is now known as bipolar disorder. It consists of at least one manic, hypomanic or mixed episode with inter episodic periods of remission called euthymic states.(Hagops S, CTP 9th edition)[30]

Goodwin and Jamison in 2007[31] reported that bipolar disorder affects approximately 1% of world population and is a disabling recurrent psychiatric illness.

According to recent study, the lifetime prevalence of bipolar disorders was 1%. It leads to severe social, occupational, interpersonal dysfunctions(Rif S. El-Mallakh Tasman 4th edition)[32] . In BPAD patient it is more evident that they have reduced functioning and well being even during inter episodic periods (soreca et al 2009) [33]. Many bipolar affective disorder patients do not have full clinical recovery in between episodes and continue to have residual symptoms even if not diagnosed as episode(Gitlin et al 1995)[34].

It is difficult to treat bipolar disorder than unipolar depression because of the multifaceted nature of the disorder. This is because while treating the depression phase of bipolar affective disorder , it can end up in mania as well as rapid cycles (Shelton, 2003)[15.] This leads to a necessity for using balance of medications in effective dosage, combinations in bipolar patients.

Many studies shows that ,even though bipolar patients remain more stable and asymptomatic in between episodes, they have some amount of neurocognitive deficits when compared to control which in turn interfere in taking medication leading to treatment resistance.(Ferrier et al 1999,2012)[35,36]

High prevalence and public health cost of bipolar disorder, necessitate the need for research to prevent and treat bipolar affective disorder (Reachal et al 2011)[37.] It's important to identify the factors that influence the development, onset and course of the illness.

It is well known that bipolar disorder runs in families , occurring 5-10 times more common in first-degree relative than general population (craddock1999)[38] . Twin studies have shown that 93% of variance for bipolar is explained by genes and 7% by environmental factors (McGuffin P et al 2003, kieseppa et al 2004)[39,40]. Even after twenty years of demonstration of this genetic component for bipolar disorder, the search for susceptible genes remains inconclusive because of the conflicting results between association and linkage studies.(Etain2008)[25]

The heritability is not exclusively due to genes , but also due to gene-environment interaction (Moffit et al 2005)[41]. It has been considered that environmental factors play an important role in individual variations in course of bipolar. Among the environmental factors, psychosocial stressors, in particular childhood trauma and recent stressful life events plays a pivotal role in bipolar disorder (Daruy-filho et al)[42.]

The existing research has emphasized that stressful life events in adulthood period play a vital role in the onset and relapse for bipolar disorder (alloy et al 2005, Johnson 2005,Hosang et al 2010)[43-45]. Another important environmental factor is the exposures to childhood adversity . Such early adverse childhood experiences have been implicated in the etiology of many psychiatric illness including bipolar disorder(Gilbert et al 2009,Johnson et al 1999, Morgan 2007, Mullen et al1996)[46-49.]

"The importance of life stress in bipolar disorder was stated in many literature (Johnson & Roberts, 1995)", the acute stressors like negative life events was most focused in many studies than the chronic stressors in the mood disorder. Most of the studies suggest that chronic stressors influences the illness course than acute stressors (A Gershon et al 2013)[50].

Two pathways have been proposed for the influence of stress on bipolar disorder. The kindling / behaviour sensitization hypothesis mainly focus on the effects of proximal stress which integrates both biological and psychosocial influences on the course of bipolar disorder stating that initial episodes are precipitated by the stressful life events but subsequent episodes are autonomous from external influence(post 1992)[51 .]

Early adversity sensitization hypothesis focus on the distal stress as the initial stimulus. Early adverse events may change the stress response system, sensitizing the individuals to late stress leading to early onset of the illness and

severe course of clinical disorder including bipolar affective disorder. (Kimberly et al 2006[23], post 2001)[52]

In contrast, a study by Georgina M. Hosang in 2012[53] on 512 people with bipolar disorder, 1448 people with unipolar depression and 600 controls, life events specificity between unipolar depression and bipolar disorder were compared and suggested that life events between unipolar and bipolar are similar . No independent life events were associated with bipolar disorder implying that these life events may be the consequences and not the trigger for episodes in bipolar disorder.

CHILDHOOD ADVERSITY:

DEFINITION:

CHILDHOOD ADVERSITY:

"Definition of childhood adversity is consistent with maltreatment (physical abuse, sexual abuse, emotional abuse, neglect or family conflict) before the age of 18 years."(Jessica Agnew-Blais 2016)[54] .

CHILDHOOD MALTREATMENT:

"It includes sexual ,physical or emotional abuse as well as childhood neglect"(J. Cotter et al 2015)[55] .

CHILDHOOD TRAUMA:

"It is a broad term that encompasses exposure to a range of adverse experiences including neglect, and physical, emotional and sexual abuse." (J.Cotter et al 2015)[55].

HISTORY:

One of the 1st reported case in childhood abuse, was Mary Ellen Wilson , the first child in the united states rescued from abusive situation in 1876 (Brittain 2006)[56]. Kemp in 1962 published paper on batter child syndrome, thus the door opened for research for child maltreatment and its consequences (Higgins 2004)[57] .

In 1974-The child abuse prevention and treatment act (CAPTA) was passed. They formulated the legal definitions of child maltreatment. (national research council,1993; US department of health and human services). In 2003 CAPTA amended, the current legal definition for, child abuse and neglect as

1) "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation

   Or

2) An act or failure to act which present an imminent risk of harm" (u .s. department of health and human services, 2005)[58]

For past three decades , the researches on the prevalence, cause, effects of the childhood maltreatment has flourished. Most of the research has suffered, due to design limitation. Since 1990, Childhood maltreatment has been recognised as a major public health issue when a federal panel declared this child maltreatment as a national emergency.(azar et al 2006, Kaplan 1999)[59,60].

Both DSM-I and DSM –II had no mention about child maltreatment. The group for the advancement of psychiatry (1974) mentioned child maltreatment among the pathogenic factors of childhood mental disorder. DSM-III introduced ‘v codes for conditions not attributable to a mental disorder that are a focus of attention or treatment. DSM-IIIR provided a definition for parent-child problem. DSM-IV changed topic title as “other conditions that may be a focus of clinical attention” with a specific section namely “problems related to abuse and neglect”. ICD-10 entitled “injury, poisoning, and certain other consequences of external causes” along with a section for Maltreatment syndrome.(William Bernet ,CTP 9th edition)[61] .

PREVALENCE:

Goodman et al in 1997[62] conducted a review of 13 studies and found that high level of prevalence of child sexual abuse and other early trauma in patients with serious mental disorder.

Felitti VJ et al in 1998[63], conducted a study in primary care setting using adverse childhood experiences questionnaire found that 50% respondents

showed history of at least one type of childhood adversity , 25% reported more than two types.

Harriet L. MacMillan et al 2001[64] conducted a study in community sample (n=7016) and stated that lifetime psychopathology was strongly associated with history of childhood abuse and more so in females than males.

Rosenmans et al 2004[65] conducted a population based study in Australia found that 57.5% of the population have at least one kind of childhood adversity and 37% reported more than one adversity.

GarnoJL et el 2005[66] conducted a prevalence study with 100 bipolar disorder patients, childhood abuse were assessed retrospectively with childhood trauma questionnaire and found that history of childhood abuse have been reported in about half of the sample, specifically emotional abuse seen in 37%, physical abuse in 24%, emotional neglect in 24%, sexual abuse in 21%, physical neglect in 12% and one third of patient have combinations of different trauma. History of childhood trauma is associated with more number of episodes, high HAM- D, YMRS scores, early age of onset of bipolar disorder.

Jennifer Greif green et al 2010[67] found that childhood adversity is associated with 25.9% to 32% of late onset mental disorder, further 26.2% population attributable risk proportion (PARP) in mood disorder.

Ramiro LS et al 2010[68] conducted a study with 1068 people and found that 75% of respondents experienced at least one adversity, 9% had 4 types of abuse, most common adversities are emotional abuse, physical abuse, emotional neglect.

Ronald C et al 2010[69] conducted a large sample study with a population of 51945 adults in 9 countries including India, found that the proportion of childhood adversity reported in high income countries was 38.4 %, middle was 38.9%, low was 39.1%. Thus childhood adversities, particularly maladaptive family functioning, parental mental illness are highly prevalent and associated with all class of mental illnesses most commonly mood disorders, anxiety disorders and etc.

John Read et al in 2012[70], suggested that not only sexual abuse, other types of childhood adversities are predictors of many mental illness, including psychosis.

Sara Larsson et al in 2013[71] conducted a study with 305 patients of mental illness using childhood trauma questionnaire found that 82% of the patients had one or more childhood trauma, most common type is emotional abuse. Schizophrenia patients reported more childhood trauma, particularly physical abuse and neglect than affective group.

Stuart Watson et al 2014[72] conducted a case-control study with 60 bipolar patients and 55 controls, the results showed that childhood trauma were reported more in bipolar patients when compared to healthy control. Moreover

emotional neglect was associated significantly with CTQ subscale, sexual abuse was not a significant predictor. The effect of childhood adversity on the clinical severity was not clear.

Ana Luzia Goncalves Soares et al in 2016[73] conducted a study with 3951 adolescents brazilian birth cohorts , 7 types of adverse childhood experiences assessed up to 18 years and found that 85% of the study population had at least one type of childhood adversity.

TYPES OF ADVERSITIES:

EMOTIONAL NEGLECT:

"Failure of the caretakers to meet children basic emotional and psychological needs, including love, belonging, nurturance and support".(Bernstein et al ,1994)[74.]

EMOTIONAL ABUSE:

"Verbal assaults on a child's sense of worth or wellbeing or any humiliating or demeaning behaviour directed towards a child by an adult or older person".(Bernstein et al 1994)[74]

Bruno Etain et al in 2010[75] conducted a case-control study with 206 bipolar patients and 94 controls found that CTQ total score and the presence of multiple trauma was high for bipolar patients when compared to controls. In

addition emotional abuse was associated with bipolar disorder in a dose- effect manner.

PHYSICAL NEGLECT:

"Failure of the caretakers to provide for a child's basic physical needs, including food, shelter, clothing, safety, and health care."(Bernstein et al 1994).[74.]

PHYSICAL ABUSE:

"Bodily assaults on a child by an adult or an older person that posed a risk of- and resulted in injury."(Bernstein et al 1994)[74.]

SEXUAL ABUSE:

"Sexual contact or conduct between a child younger than 18 years of age and an adult or older person."(Bernstein et al 1994). [74]

Beth E in 2001 conducted a study with 5877 national representative sample, found that sexual abuse reported in women was 13.5%, men was 2.5%. Moreover childhood sexual abuse was strongly associated with mental illnesses particularly depression, anxiety disorder, post traumatic stress disorder(PTSD) (Beth E et al 2001)[76].

Josie spataro et al conducted a study in a sample of 1612 children (285 males, 1327 females) reported that both genders are affected . In addition they have a significant high rates of mental illnesses like major affective disorder,

anxiety, personality disorder. Infact male victims were significantly treated more than the females.(Josie spataro et al 2004)[77.]

THE NEURO BIOLOGY CONSEQUENCES:

Lyons DM in 2002[78] illustrated that early childhood adversity is associated with dysfunction in prefrontal cortex, hippocampus and their volume.

Early stress and maltreatment affects the neuro developmental process in the brain mainly neurogenesis, synaptic overproduction, pruning, and myelination. Many structural and functional neurobiological consequences of early stress have been identified and these including reduced corpus callosum size, decreased development of left neocortex, hippocampus, and amygdala and increased electrical irritability in limbic structures and decreased functional activity of cerebellar vermis. In addition, the changes occurs in hypothalamo-pituitary-adrenal axis(HPA)functioning . The psychiatric disorders are mainly due to the neurobiological sequelae of early stress and maltreatment (Martin et al 2003)[79] .

Panzer A in 2008[80] in his study suggested that adverse events in the childhood period has a long lasting effect on the neurodevelopment of brain and functional brain alterations were noticed in the hypothalamo pituitary adrenal (HPA) axis.

BIPOLAR DISORDER AND CHILDHOOD ADVERSITY:

Kraepelin in 1921[1] stated that environmental stressors have been considered as important factor for individual variations in the clinical course of bipolar disorder. O' Connell in 1986 [81] suggested that even though genetic and biological factors are important etiological factors in the understanding of bipolar disorder, the individual difference in the clinical presentation of bipolar disorder was not entirely explained by these factors.

Darves –Bornoz et al in 1995[82] conducted a study with 64 schizophrenia and 26 bipolar women found that 28% of bipolar patients had history of sexual abuse involving bodily contact.

Levitan et al in 1998[83] conducted a study with 63 bipolar patients and 653 major depression cases found that major depression with reversed vegetative features associated with childhood trauma particularly physical, sexual abuse. Manic symptoms were strongly associated with physical abuse.

Cloitre in 1998[84] suggested that childhood maltreatment particularly sexual abuse can interfere with childs ability to regulate their emotions by chronic arousal. Moreover, children with family problems, may not have opportunities to develop affect regulation skills. The important features of bipolar disorder are affect regulation and mood swings(Goodwin & Jamison).

Hyun et al in 2000[85] conducted a study with a total of 333 cases of bipolar and unipolar cases found that among childhood adversity mainly sexual

abuse was mostly reported, more so in bipolar than unipolar disorder. Moreover sexual abuse is seen more commonly in females than in males.

Hammen et al in 2000[86] conducted a follow up study for 2 years , the results showed that women with childhood adversity have lower threshold for developing mood disorder to minimal stress when compared to without childhood adversity.

Heim C , Nemeroff et al in 2001[87] suggested that exposure to early life stress causes persistent sensitisation of central nervous system, hyper activity of corticotrophin releasing factor, alterations in the neurotransmitters, thus associated with the neurobiological changes in childhood and adult which may increase the risk of psychopathology, subsequently leading to development of mood disorders and anxiety.

Leverich et al in 2002[88] said that early adverse experiences will lead to long lasting consequences in the affective behaviour, neurochemistry and brain structure.

Alloy et al in 2005 [43] suggested that psychosocial factors mainly, early environmental stressors may affect the development and alter the course of bipolar spectrum disorder. Similarly Leverich GS et AL in 2006 [89] suggested that among the environmental stressors, childhood adversity is the important factor in the negative outcomes of mental disorder, including bipolar disorder.

Goldberg et al in 2005[90] conducted a study with 100 bipolar disorder using childhood trauma questionnaire found that childhood abuse was reported in half of the bipolar patients and one third of PTSD patients particularly, sexual abuse. Childhood sexual abuse and inter personnel loss may sensitize the individuals who were predisposed to bipolar disorder.

Brown et al in 2005 [91] in his study with 330 bipolar disorder ,suggested that history of any childhood adversity, acts as a course modifier in bipolar disorder and it is associated with substances misuse and suicidal attempts. Victims of physical abuse are more prone for alcohol misuse and rapid cycling. Sexual abuse was also commonly associated with substances misuse. Both physical and sexual abuse were associated with poor quality of life and substances misuse.

Neria et al in 2005[92] conducted a study in a cohort of 109 first admission bipolar patients with psychosis using clinical interview found that bipolar patients with childhood maltreatment history had high scores in general health questionnaire and less happiness. Childhood trauma act as a significant risk factor for poor outcome of bipolar disorder . BPAD patients with history of childhood adversity have an increased risk for poor course of illness.

Marguire et al in 2008[93] conducted a study with 60 BPAD patients using childhood trauma questionnaire found high prevalence of childhood trauma in bipolar disorder. Trauma in childhood was associated with poor quality of life,

hospitalization, depression symptoms. Awareness of trauma plays a role in individual differences in bipolar presentation.

Amy M.Neeran et al 2008[94] conducted a study in 217 bipolar patients suggested that negative parenting characteristics like emotional maltreatment by father, mother and physical maltreatment by mother were associated with diagnosis of bipolar disorder Etain et al in 2008 [25] in his review paper suggested that childhood abuse was reported more commonly in BPAD patient and act as a disease modifier in clinical expression of bipolar disorder. The neurobiological consequences of childhood trauma in bipolar disorder remains unclear, stressors may change the organisation of brain development leading to inadequate mood regulation.

Welli Lu et al in 2008[95] conducted a study with 254 mood disorder patients using adverse childhood experiences scale , conflict tactics scale found that adverse childhood experiences was associated more likely with early age of hospitalization, high risk behaviours , high suicidal attempts, worse mental, health and poor functional outcomes in mood disorder.

Katie et al in 2010[96] conducted a study with data from national epidemiological survey of alcohol and related conditions(n=34,653) found that in addition to past year stressful life events, the individuals with history of childhood adversity have an increased risk of major depression, post traumatic stress disorder. The individuals with childhood adversity have 27.3% increase in the 12 months prevalence of depression when compared to individuals

without childhood adversity. Stress sensitisation was more evident among the individuals with more than 3 types of childhood adversities.

Helen L Fisher et al in 2010 [13]in review of 29 papers suggested that childhood maltreatment was reported more common in bipolar disorder. But they have a varied prevalence and not in consistent with the association of clinical presentation.

Daruy- filho L et al in 2011[42] conducted a review of 19 studies and found that childhood adversity is associated with early onset of bipolar disorder, suicidality and substances misuse. Childhood maltreatment is an important risk factor in the worsening clinical course of bipolar disorder particularly physical abuse.

Sugaya et al in 2012[97], a study from NESARC(National epidemiological survey on alcohol and related conditions) demonstrated odds risk ratio for mood disorder is 1.41 in the individuals with childhood adversity.

Nemeroff CB et al in 2016 [98] stated that regarding the neurobiology and clinical consequences of childhood abuse and neglect , childhood adversity is associated with biological alterations in neuroendocrine , neurotransmitter system, pro inflammatory cytokines, specific alterations in brain areas associated with affect regulation mainly increased amygdala activation, an important brain region in affect regulation, fear, and emotions.(van Harmelen et al 2013)[99.]

Jessica Agnew-Bias et al in 2016 [54] conducted a review and meta-analysis of 30 papers suggested that bipolar patients with childhood trauma had severe clinical presentation like more depression and manic episodes with more severity, greater severity in psychosis, high risk of substance abuse, earlier age of onset, rapid cycling, high risk of suicide attempts.

SE Gilman et al in 2015[100] conducted a cohort study for 3 years follow up , found that BPAD patients reported more likely to have a history of childhood adversity and recent stressors than without adversity. Exposure to childhood abuse increases the effects of recent stressors on mania.

Katherin .M.et al 2012[101] conducted a large national representative (n=34,653) sample study reported that childhood maltreatment and common psychiatric illness were associated through latent abilities to experiences internalising and externalising psychopathology. Thus common mental disorders can be prevented . Gender differences occurs in the maltreatment, men more with externalising and women with internalising lability.

In her review paper, Monica Aas et al 2016[102] discussed that the childhood adversities acts as important risk factor in the development of bipolar disorder and also act as disease modifier in the clinical presentations like early age of onset , rapid cycling, increased risk for suicidal attempts, substance misuse. Moreover maltreatment alters the affect regulations, impulse control, cognitive functioning and reduces the coping strategies for later stressors .Childhood trauma affects several genes which code for different

biological pathways like HPA axis, serotonergic pathways, neuroplasticity, immunity, calcium signalling and circadian rhythm thus decreasing the age of onset and increasing suicidal risk.

Mariane N. Noto et al 2015 [103] conducted a study with 43 bipolar patients using bipolar prodrome symptom scale – retrospective(BPSS-R) and childhood trauma questionnaire and they concluded that history of childhood trauma was reported in 81.4% of bipolar patients participants. Also prodromal symptoms like social withdrawal, decreased functioning, anhedonia were reported to have a strong positive association with childhood maltreatment.

AGE OF ONSET:

Elizabeth A. Young et al in 1997 [104] conducted a study with 650 patients with mood and anxiety disorder. Childhood adversities like emotional abuse, physical abuse, sexual abuse was reported nearly in 35% of the patients with depression, and seen more commonly in women than men. It is associated with early onset of mood symptoms.

Alex A. Giese et al 1998[105] who conducted a study with 110 mood disorder patients showed that childhood abuse was associated with earlier onset of mood disorder but not likely associated with level of functioning or duration of hospitalisation.

Post RM et al in 2001 [52] in his study suggested that bipolar disorder patients with history of early childhood adversity particularly sexual and

physical trauma was associated with early onset of illness, rapid cycling, increased suicidal attempts, thus more severe course of the bipolar disorder Leverich et al in 2002 [88] conducted a study with 631 bipolar disorder using clinical interview and found that childhood trauma particularly physical, sexual

abuse is associated with early onset of bipolar disorder, rapid cycling, increased suicidal attempts, severity of mania.

Dienes et al in 2006 [106] conducted a study with 58 BPAD patients and suggested that individuals with childhood trauma have increased risk for recurrence of bipolar disorder . In consistence with stress sensitization hypothesis, the interaction between the early childhood adversity and stressful life events, and their severity determines the recurrence of bipolar disorder. Sexual abuse and neglect in the childhood period was associated with earlier onset of bipolar disorder

Grandin et al in2007 [107] conducted a cross sectional study with 155 bipolar disorder patients using childhood life events scale found that harsh environment effect explain the relationship between childhood adversity and bipolar disorder in a better manner. In addition, negative emotional events in childhood period predicts the early age of onset of bipolar disorder.

Daniel N kilen et al in 2009 [108] conducted a study with 808 chronic depression patients found that patients with history of early adversity had early onset of depression.

DURATION OF ILLNESSS:

Study conducted by Romero et al in2009 [109] with 446 young patients with BPAD , found that sexual and physical abuse is more common in young BPAD patients with comorbid PTSD, pyschosis . History of physical and sexual abuse was associated with longer duration of illness.

Jules angst et al in 2011[110] conducted a study with 104 bipolar disorder patients and 110 unipolar depression and found that childhood family problems was associated with chronicity of mood disorders (that is presence of symptoms more than 2 years).

NUMBER .OF EPISODES :

Kupka et al in 2005 [111] conducted a study with 419 bipolar 1, 104 bipolar 2, 16 bipolar otherwise non specified patients and found that bipolar with the history of child abuse particularly physical, sexual abuse was associated with rapid cycling ,increased number of episodes.

PYSCHOTIC FEATURES:

Goodwin ,D.W.& Jamison et al in 1990 [112] conducted a review of 20 studies from 1922 to 1989 and found that the prevalence of hallucination in bipolar disorder was around 18%. Ross et al in 1994 [113] conducted a study and found that positive symptoms in psychotic patient is likely to be associated with child abuse, especially with physical and sexual abuse. Read et al 2003[114] gave a similar conclusion with particular emphasis on auditory hallucinations.

These hallucinations are post traumatic reactions that occurs in later part of life in response to childhood trauma.

In another study conducted by Paul Hammersley et al in 2003 [115], in sample of 96 BPAD patients a significant association between general trauma and auditory hallucinations was found. A very high significant association between sexual abuse and auditory hallucinations was noted with no significant association between childhood trauma and reports of delusions and tactile or visual hallucinations.

In a study done by Jansen .I. et al 2004 [116], with 4045 general population followed for 2 years for first ever onset of positive psychotic symptoms , the result showed that early childhood trauma increases the risk of positive symptoms in a dose response pattern.

Another study by Birchwood et al 2004[117] suggested that childhood adversity leads to mal development of schemas like social humiliation and subordination which in turn causes paranoia. Similarly , a study conducted by Shevlin M et al in 2007[118] also found similar reports with strong association between psychosis and abuse compared to neglect .

Heins et al in 2011[119]conducted a case control study n=227 control ;n=272 cases, n=258 siblings found that childhood trauma and psychosis has true association rather than a bias. Positive symptom may occur as a consequence of level and frequency of abuse rather than neglect.

Bentall et al in 2012[120] conducted a large population based study and found hallucinations are associated with sexual abuse. The exact mechanism by which trauma leads to hallucination in psychotic patients is not well understood. Some psychological studies suggested that hallucinations result from misattribution of mental events to external or alien source .

In meta- analysis conducted by Filippo Varese et al in 2012 [121], meta-analysis of 36 studies {18 case-control studies (n=2048,psychotic patient, 1856 control), 10 prospective and quasi prospective studies (n=41803) and 8 population based cross-sectional studies(n=35546)} found that childhood adversities increases the risk of psychosis by three fold and a positive association was found in the comprehensive meta-analysis. In a similar way, Vanwinkel et al in 2013 [122] also suggested that affective dysfunction following childhood trauma increased the risk of developing psychosis.

Sonal shah et al, 2014 [123] who conducted a large sample study with 1825 psychotic Patients found that 30% of the psychotic patients had history of childhood abuse. They had a significant relationship with thought disorder and childhood adversity.

Rachel upthegrove et al 2015[124], conducted a study as a case review note of 2019 patients and suggested that there was no significant relationship between childhood events and psychosis mainly delusions. However significant relationship was observed between auditory hallucinations and

child abuse, strongest between sexual abuse and mood congruent or abusive voices.

In contrast to above studies , Martine van Nierop et al in 2014 [125] conducted , a large representative population based sample study n=13722 found that no significant association between any of the trauma and isolated psychotic symptoms like delusions and hallucinations. It could be a co occurrence of hallucination and delusion and physical , sexual, emotional abuse, emotional neglect.

AGGRESSION:

Increased aggression is noted in adults with or without bipolar disorder with a history of childhood trauma(widom 1989, Pollocket al 1990, Brudsky et al 2001) [126,127,128].

Increase in catecholamines and increased activity in hypothalamus – pitutary-adrenal axis in the bipolar patients leads to increased impulsivity in individuals with history of childhood adverse events (De Bellis et al)[129] .This impulsive aggression is linked with low levels of serotonin, high levels of catecholamines and also with high glutaminergic activity when compared to GABAergic activity.(Swann et al 2003)[130].

Bipolar disorder patients show increased violence ranging from 9% to 50%. More impulsive aggression is noticed in the mania and mixed episode periods and also in depression with irritability and aggression . Moreover

BPAD is associated with comorbid substance abuse which also further leads to increase in the aggression in bipolar patients with the history of childhood abuse (Goodwin FK 2007, volvaka J.2013, Pulay AJ 2008, Fazel S 2010)[131-134.]

Even in euthymic state, bipolar patients with comorbid borderline personality disorder have increased aggression.(Carpiniello et al 2011)[135].

Bipolar patients with the history of childhood trauma, in addition to poor insight in manic phase with aggression, fail to trust and collaborate with clinician leading to poor motivation for treatment.(Pearlman 2005)[136].

Bipolar patients with history of childhood adversity have high prevalence of violent behaviour and aggression. So clinician should have utmost care in treating the mood episodes, aggression emergencies and teach coping skills to the patients. So identifying the early childhood trauma will help in therapeutic alliance and better outcome(Allison et al 2014)[137].

Garno JL et al in 2008[138] conducted a study with 100 bipolar patients with childhood trauma questionnaire and found that childhood emotional abuse, physical àbuse , emotional neglect were associated with aggression scores (total BGA scores- Brown Goodwin aggression scale). Manic and depression symptoms were associated with trait aggression in bipolar disorder.

SUICIDE ATTEMPT:

Leverich et al in 2003[139] conducted a study with 648 bipolar disorder and found that bipolar patients with history of early traumatic stressors have

more history of suicide attempt. Physical and sexual abuse is associated with suicidal attempts and a difficult course.

Angela E. McHolm, Ph. D in 2003[140] conducted a study with 437 women with a diagnosis of major depressive disorder and found that 23.9% of the sample had made a suicide attempt and 55.6% had suicidal ideation. Moreover suicidal ideation is associated with childhood physical abuse with the OR 2.77(odds ratio=2.77, 95% CI=1.26–6.12).

Mclntyre et al in 2008 [141] in his study with 381 adult bipolar disorder found that childhood abuse is associated with suicidal ideation and suicidal attempts in bipolar patients. Carballo et AL in 2008 [142] conducted a study with 168 bipolar patients and results showed that bipolar patients with family history of suicidal behavior and history of childhood adversity like physical and sexual trauma was associated with younger age of first suicide attempt and more number of suicide attempts, early onset of bipolar disorder, impulsivity, aggression, , hospitalization than bipolar patients with only family history of suicide behaviour or only with the history of childhood trauma or none of the factors.

In a study conducted by Ronny Bruffaerts in 2010 [143] ,a nationally representative samples (n = 55 299) were interviewed regarding childhood adversities that occurred before the age of 18 years and life time suicidal behaviour and it was found that childhood adversity is strongly associated with both suicidal ideation and suicidal attempts. In addition ,the onset and

persistence of suicidal behaviour in adolescents is strongly associated with risk factors like physical , sexual abuse.

Alvarez et al 2011[144] conducted a cross sectional study with 102 patients , (40 patient bipolar disorder) and found high prevalence of childhood trauma in severe mental illness (nearly 47%) and confirmed the relationship between childhood trauma and severe psychosis. Moreover the victims of emotional abuse have frequent hospitalization and sexual abuse victims have twice the risk of committing suicide.

In consistence with the above studies, Catherine Tunnard in 2013[145] conducted a study with 137 treatment resistant depression patients and found that childhood adversity is more common in treatment resistant depression and associated with poor clinical course, psychosis and suicide attempts.

Belin da Bruwer et al in 2014[146] in their study suggested that suicidal behaviour mainly persistent suicidal thoughts was strongly associated with risk factors like childhood adversity - sexual, physical abuse and parental divorce.

TREATMENT:

Marchand et al in 2005 [147] who conducted a study with 66 bipolar disorder found that adverse events in the childhood have a bad impact in the prognosis of BPAD. Childhood maltreatment like sexual abuse, physical abuse, neglect were associated with poor response to treatment outcomes in

bipolar disorder. With a note that physical abuse was associated with more hospitalization.

Kupka etal in 2005 [111] conducted a study comparing 206 BPAD patients with rapid cycling and 333 non rapid cycling . In his study he found that rapid cycling BPAD patients have more history of childhood trauma, mainly physical abuse, sexual abuse which in turn is coupled with poor treatment outcome.

Berk M et al 2007 [148] in his study suggested that treatment resistance in bipolar disorder may be due to rapid cycling. Kapczinki F et al in 2008[149] suggested that allostatic load is an important explaining clue in the bipolar patients with recurrent mood episodes due to the disruptive health effects of intermittent episodes and stressors. These stressors and intermittent episodes produce changes in the brain regions involved in emotional circuit making the patient more vulnerable to further stressors. Thus this allostatic load theory provides explanatory clue in the course of bipolar disorder and importance of long term treatment prophylaxis in bipolar disorder.

Kate L et al2012[150] conducted a study with 203 major depressive disorder patients and found that patients with severe childhood trauma will respond less likely to interpersonal psychotherapy than a combination of medications and cognitive behaviour therapy. So patient with childhood maltreatment benefit more from a combination of antidepressant medication with cognitive behaviour therapy.

Another study conducted by Bruno Etain et al, in 2013[151] with 587 BPAD patient suggests that in accordance with the gene- environment interaction hypothesis of bipolar disorder, childhood trauma act as a predisposing factor , childhood trauma act as a poor prognostic feature of long term treatment outcome of BPAD.

Regina sala et al 2014[152] who conducted a study with 1600 BPAD patient using childhood trauma questionnaire and conflict Tactics scale found that around 50% of individuals with BPAD had a history of at least one type of childhood trauma. There was a dose –response relationship between the probability of having received different modalities of treatment including pharmacological treatment, psychotherapy and different types of childhood maltreatment .

A prospective follow up study conducted by Sibel Cakir (2016)[153] of 135 BPAD patients using childhood trauma questionnaire and response to long term treatment from records found that there was no significant association between childhood trauma scores and response to lithium treatment. But elevated scores in emotional and physical abuse was observed in poor responders to treatment with mood stabilisers. A history of childhood trauma in bipolar patient is a poor prognostic factor. BPAD patients with PTSD show poor response to lithium treatment. Prevalence of childhood trauma in BPAD is common and associated with poor outcome in BPAD, poor response to mood stabilisers maintenance treatment.

FUNCTIONAL OUTCOME:

Earlier Kraeplin1976[154], in his studies said that bipolar disorder has better outcome than schizophrenia because of absence of cognitive impairment and normal functioning in the inter episode period. Zarate CA et al in 2000[155] defines functioning as a complex concept, the capacity to work , study, live independently and engage in romantic life.

In a study conducted by willem A. Nolen et al 2004[156] with 258 patients found that increased severity and number of episodes of mania was associated with history of childhood abuse. More than 10 episodes of mania is associated with poor occupational functioning.

Tohen M in 2005[157] in his 2 year follow up study on hospitalised patients with first episode mania with psychotic symptoms described functional recovery as the ability to achieve the level of functioning prior to the most recent episodes.

Rucklidge et al in 2006[158] conducted a study with 24 BPAD patients and found that there is no association between trauma and psychosocial functioning.

Savitz et al in 2008[159] conducted a case-control study with 49 bipolar patients and 61 controls using childhood trauma questionnaire and found that compared to the controls , BPAD patients with history of psychosis had high reports of childhood abuse particularly sexual abuse. In addition sexual,

emotional abuse and neglect score showed association with the poor cognitive performance.

A study conducted by Conus et al in 2010[160] with 118 bipolar disorder I found that 80% patients had stressful life events in childhood and adolescent, particularly sexual and physical trauma in 24.9%. Moreover BPAD patients with sexual and physical trauma have poor premorbid functioning using Global assessment of functioning (GAF) and premorbid adjustment scale, in addition they have poor adherence to treatment.

BuckerJ et al in 2013[161] conducted a case-control study with 64 bipolar disorder patients and 28 healthy subjects and found that BPAD patients with childhood trauma have poor cognition. Significantly worse level of global functioning was noted in young adult BPAD patients with a history of childhood trauma than without childhood trauma.

Sara Larsson et al in 2013[162] conducted a study in 141 BPAD patients and found a significant association between childhood trauma score and reduced psychosocial functioning (GAF). Mainly emotional abuse/ neglect, physical abuse has reduced GAF scores indicating reduced level of functioning.

J.cotter et al in 2015 [55] in his narrative review suggested that high rates of childhood trauma identified in bipolar disorder was associated with impaired social and occupational functioning in both premorbid and established phase of psychiatric disorder. One of the possible reason is problem with adherence and response to treatment.

SUBSTANCE ABUSE

Goldstein et al in 2008 [163] conducted a study with 249 adolescents with bipolar disorder and found that sexual and physical abuse was associated with substances misuse.

In a summary, childhood adversity is more prevalent in psychiatry disorders, including mood disorder than the general population. Although there were some literatures showing a different variations in the results regarding childhood adversity and bipolar disorder, more studies were in favour of the association between the both. Childhood trauma affects the clinical presentation and the course of the bipolar disorder like early age of onset, increased duration, increased number of episodes, rapid cycling, increased suicides and suicidal attempts, increased aggression, exhibiting more psychotic symptoms like delusion and hallucinations. Moreover it is associated with poor treatment response, increased substance misuse, low level of general functioning.

AIMS AND OBJECTIVES

AIMS :

To assess the role of childhood adversities in the clinical presentation of bipolar affective disorder.

OBJECTIVES:

Primary objective:

To compare the proportions of childhood adversities in bipolar patients under remission (or euthymia) with age, sex matched healthy control.

Secondary objective:

To study the clinical presentation, course and outcome of BPAD patients under remission (or euthymia) with childhood adversities and BPAD patients without childhood adversities.

To assess the effect of various subtypes of childhood adversities on the clinical presentation, course , outcome of bipolar affective disorder

HYPOTHESIS

NULL HYPOTHESIS:

There is no significant differences in the childhood adversities between the bipolar affective disorder patients under remission and healthy controls.

There are no significant differences in the clinical presentation, course, outcome between the bipolar affective disorder patients with childhood adversity and those without childhood adversity.

There is no significant differences in the various subtypes of childhood adversities on the clinical presentation, course, outcome of the bipolar affective disorder.

MATERIALS AND METHODS

SETTING:

The study was conducted in Institute of Mental health, Madras Medical College, Chennai, a tertiary care centre for Tamil Nadu. The necessary prior permission for conduct of the study was obtained from Institutional Ethics Committee, Madras Medical College, Chennai.

STUDY POPULATION:

Bipolar affective disorder (BPAD) subjects who are in remission attending the outpatient department in Institute of mental health . Healthy controls were selected from the care givers of the patients in Rajiv Gandhi general hospital, Madras medical college hospital, Chennai.

SAMPLE SIZE:

A total of 200 sample size with 100 BPAD patients under remission and age , sex, socioeconomic status matched 100 healthy controls was collected.

SAMPLE SIZE CALCULATION:

When we calculated sample size for this case-control study, with 95% , two sided confidence interval 1- alpha, with 1:1 ratio of controls, with proportion of cases with childhood adversity of 51% (Garno JL et al 2005) [66] and proportion of controls with 31% (Bernstein, D. P., & Fink, L. 1998)[164]

with extreme odds ratio of 7.00 . we arrived at a sample size of minimum 91 in number in each cases and controls . using the formula

$$n = [2 * p * q * (Z\left(1 - \frac{\alpha}{2}\right) + Z(1 - \beta)2]/(p1 - p2)2.$$

PERIOD OF STUDY:

The study was conducted for a total of 6 months from March 2016 to August 2016

SAMPLING METHOD:

Consecutive sampling.

RESEARCH DESIGN:

CASE-CONTROL STUDY:

Two hundred individuals participated in the study, 100 bipolar affective disorder patients in remission or euthymia where included and 100 healthy controls (age, sex, socioeconomic status matched) recruited from the care givers of the patients in the Rajiv Gandhi general hospital, Madras Medical college hospital, Chennai.

INCLUSION CRITERIA:

1. All subjects who met criteria for BPAD according to Diagnostic and Statistical manual fifth edition (DSM-V) or ICD-10 , qualifying for

remission, last episode at least 6 months earlier.(euthymia HAM-D≤ 8; YMRS ≤6)

2. Age group 18-50 years old.
3. Willing to give written informed consent for the participation in the study.[Annexure]

EXCLUSION CRITERIA:

1. All subjects having comorbid neurological illness or head injury.
2. Subjects with any substance dependence .
3. Subjects having comorbid other major psychiatric illness/ mental retardation.
4. Age less than 18 and more than 50years.
5. Subjects not willing to give informed consent.

OPERATIONAL DESIGN:

After obtaining the written informed consent from the participants as required by the Institutional ethical committee.

IN CONTROLS:

1. Age , sex, socioeconomic status matched first
2. MINI-Plus questionnaire was used to rule out other comorbid psychiatric illness.
3. Childhood trauma questionnaire was used to assess the childhood adversities.

IN CASES:

1. All subjects with bipolar affective disorder as per DSM-V or ICD-10 were administered MINI-Plus to rule out the other comorbid psychiatric illness.
2. They were quantified for remission (euthymia) by using Hamilton depression rating scale(HAM-D) and Young mania rating scale(YMRS) with HAM-D score≤ 8 and YMRS ≤6.(Martinez- Aran et al 2007) [165] with the help of medical records in our tertiary hospital, the severity of the above scales quantified when an episode occurred and followed up with the above scales and also were recorded as patient under symptomatic remission. Those who have achieved remission 6 months before by these scales were taken into the study.
3. The subjects were administered the following childhood trauma questionnaire for assessing the childhood adversities, global assessment of functioning for assessing functioning and semi structured for aggression, psychosis, suicidal attempts.
4. Alcohol use disorders identification test were used to rule out alcohol dependence patients and to ensure the alcohol usage in misuse pattern.

The instruments used are:

- MINI-Plus structured clinical interview.
- Semi- structured questionnaire for sociodemographic profile.
- Hamilton's depression rating scale.

- Young mania rating scale.
- Childhood trauma questionnaire.
- Semi –structured questionnaire for aggression, psychotic episodes, suicidal attempts.
- Global assessment of functioning scale.
- Alcohol use disorder identification test (AUDIT).

MINI-PLUS structured clinical interview:

The MINI-PLUS is a brief structured interview to rule out Axis I psychiatric illness as per DSM-IV and ICD-10, which include 26 disorders in it. The biggest advantage is, it can be administered with a median time of 15 minutes when compared to SCID-P for DSM-III and CIDI (ICD-10 developed for lay interviewers by WHO). It has more comparably high validity and reliability scores.

SEMI STRUCTURED PROFORMA:

It was used to collect subject's sociodemographic details like name, age, sex, education, occupation, marital status, address, socioeconomic status according to modified Kuppuswamy scale, along with clinical variables like age of onset of illness, duration of illness, number of episodes, suicide attempts, aggression, psychotic features, substance use, currently under which medication the patient is on.

HAMILTON'S RATING SCALE:

Max Hamilton first introduced this Hamilton's rating scale [HAM-D or HDRS][166] in 1960. It is accepted widely and used to assess the severity of the depression and helps as a follow up guide in the recovery phase. Though the original author does not provide a specific guidelines to administer and rating, it has high inter-rater reliability and validity. Many version of HDRS are available. In HAM-D 21 item version only 17 items were scored and others are taken up for clinical information like hypersomnia, increased appetite and concentration and indecision. It takes about 20 minutes to administer. Eight items scored from 0to 4 and other 9 items are scored from 0 to 2.[0= not present;4=very severe].

NORMAL	MILD	MODERATE	SEVERE	VERY SEVERE
0-7	8-13	14-18	19-22	≥ 23

YOUNG MANIA RATING SCALE:

This Young Mania Rating scale (YMRS)[167] is used to quantify the severity of the manic symptoms during the episode and as well during the recovery phase in the treatment. It consist of 11 items scored on a likert scale 0 to 8 for four items, 0 to 4 for 7 items. Reliability is good based on inter-rater reliability and consistency studies.

CHILDHOOD TRAUMA QUESTIONNAIRE:

This childhood trauma questionnaire (CTQ)[164,168] is a 28 item scale developed by Bernstein & Fink in 1994,it is a self reported measure of 5 categories of childhood trauma like physical abuse, physical neglect, emotional abuse, emotional neglect, sexual abuse. Each categories measured by 5 items .It contains 3 items for identifying false negative reports. It takes 10 minutes to administer. It is rated on a 5-point, likert-type scale ranging from never true(score=1) ; rarely true (score=2); sometimes true(score=3); often true(score=4); very often true (score=5). It has good internal consistency 0.63 -0.95; criterion- related validity 0.50-0.75; Cronbach's alpha is 0.82. Total score is obtained by summing all the scores ranging from 25 to 125.(Bernstein et al 1994,2003)." In this study we used the CTQ dichotomous clinical cut-off scores that differentiate between the presence or absence of significant abuse and neglect. The cut-off points were 8 or higher for physical abuse, 8 or higher for physical neglect, 8 or higher for sexual abuse, 10 or higher for emotional abuse, and 15 or higher for emotional neglect".[Laura Bevilacqua, MD, et al, 2012][169].

Trauma type	None	Low	Moderate	Severe
Physical abuse	7	8-9	10-12	13-25
Physical neglect	7	8-9	10-12	13-25
Emotional abuse	8	9-12	13-15	16-25
Emotional neglect	9	10-14	15-17	18-25
Sexual abuse	5	6-7	8-12	13-25

SEMI- STRUCTURED PROFORMA:

AGGRESSION:

History of aggressive behaviours in the previous episodes from the clinical records taken.

PSYCHOTIC SYMPTOMS:

History of presence of psychotic symptoms like lifetime presence/ absence of delusions[including persecutory, grandiose, depressive, nihilistic, guilt, reference];auditory hallucinations [including mood congruent hallucinations, accusatory/ abusive and running commentary] and visual hallucinations taken from the clinical records .(Racheal upthegrove 2015) [124.]

SUICIDE ATTEMPTS:

Information regarding suicide attempts was gathered directly through three interview questions and from the clinical records: 1) “Have you ever thought about committing suicide?” and 2) “Have you ever attempted suicide?” (Angela E. McHolm, Ph.D.2003)[140] 3) How many attempts made till now?

TREATMENT DETAILS:

The current medication under which patient was maintaining remission was obtained from clinical records. Only on antipsychotics or mood stabiliser and antipsychotics combination or mood stabiliser , antipsychotics and antidepressant combination or none.

ALCOHOL USE DISORDER IDENTIFICATION TEST:

This Alcohol use disorder identification test (AUDIT)[170] questionnaire helps in identifying persons with excessive drinking and recognising hazardous and harmful patterns of alcohol consumption. This provides a base for treatment, intervention, and planning deaddiction programes.it has 10 questions. Ist to 3rd question are on alcohol consumption; 4th to 6th – alcohol drinking behaviour and dependence;7th to 10th questions are on the consequences or problems related to drinking.

1st to 8th question – scored as 0,1,2,3,4 on five –point scale.

9&10th question –scored as 0,2,4 on a three –point scale.

Maximum score-40;

GLOBAL ASSEESSMENT OF FUNCTIONING SCALE :

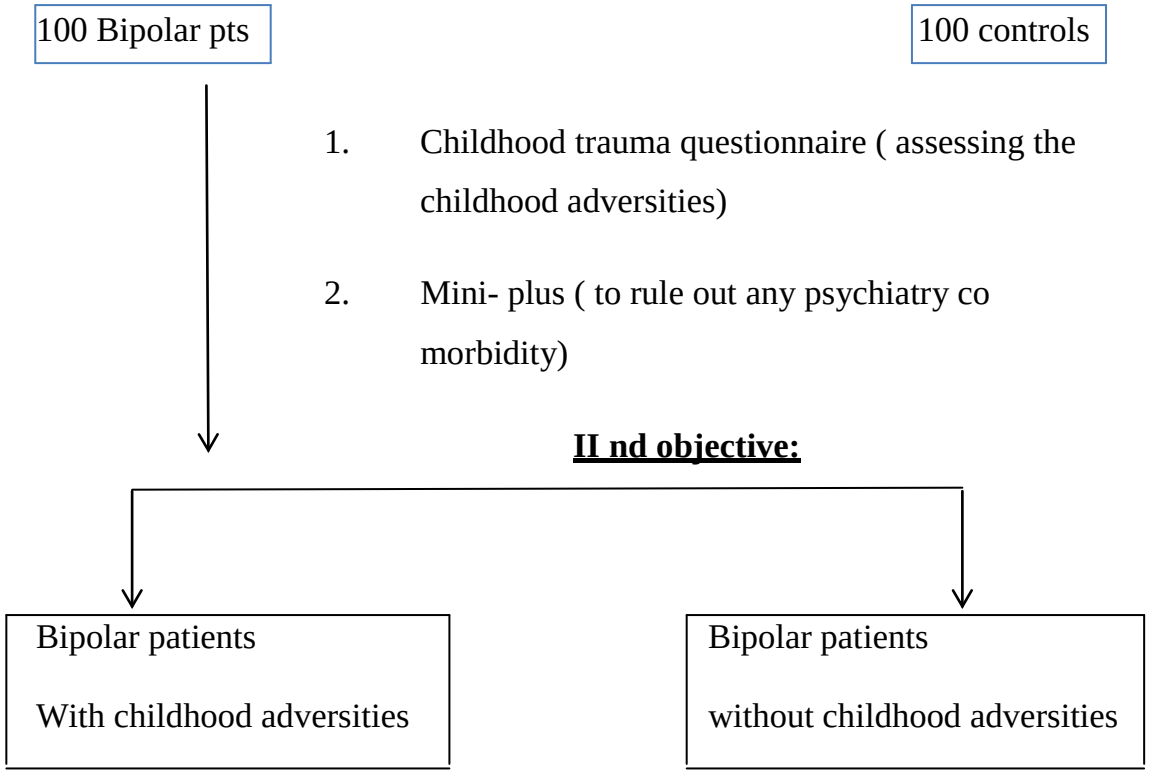
This Global assessment of functioning scale (GAF)[171] is a numerical scale ranging from 1 to 100 used to assess the functioning of the adults. Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health-illness. Do not include impairment in functioning due to physical (or environmental) limitation. This scale is described in the DSM -IVTR page 34." The patients are divided into two groups above GAF Score 60 and below 60. A score of 60 was priori considered as a cut-off to distinguish patients with good and low psychosocial functioning" (Martinez-Aran et al,2007)[165].

STATISTICAL DESIGN:

Significance level is fixed as 5% ($\alpha = 0.05$). **(If P-Value is <0.05 then statistically significant)** .The Normality tests Kolmogorov-Smirnov and Shapiro-Wilks tests results reveal that the variables follow Normal distribution. Therefore to analyse the data Parametric methods are applied. To compare the mean values between groups independent samples t-test is applied. To compare proportions Chi-Square test is applied. If any expected cell frequency is less than 5, then Fisher's exact Chi-Square test is used. One way ANOVA was used to compare means with clinical variables.

OPERATIONAL DESIGN

Ist objective:



Comparing both groups on the following clinical presentations:

1. Age .of. onset
2. Duration of illness
3. No. of. episodes
4. Aggression
5. Suicidal attempts
6. Psychotic episodes
7. Present medication in maintenance phase
8. General functioning
9. Substance misuse.

IIIrd objective :

Comparing the various subtypes of childhood adversities (Physical abuse, Physical neglect, Emotional abuse, Emotional neglect, Sexual abuse) on the above said clinical presentations.

RESULTS AND OBSERVATIONS

SOCIODEMOGRAPHIC PROFILE:

The sample consist of 100 patients(cases) and 100 (controls) who were matched for age, sex, socioeconomic status. In cases and controls 52 males and 48 females were there.

TABLE:1

Independent samples T-Test to compare mean age between Groups.

Variable	Group	N	Mean	Std. Dev	t-Value	P-Value
Age	Case	100	33.25	8.653	0.098	0.992
	Control	100	33.13	8.717		

AGE:

There was no significant difference in age between case and controls (P=0.992). Mean age of the (case) Patients was 33± 8.6 years and controls was 33 ±8.7 years. Thus it denotes age matched.

Chi –square test for comparing the proportions between groups:

TABLE:2 . GENDER:

Gender	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Male	52	52.0	52	52.0	104	52.0
Female	48	48.0	48	48.0	96	48.0
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	0.000	1.000

No significant differences noted in the gender(P=1).

TABLE: 3 SOCIO-ECONOMIC STATUS:

Socio Economic Status	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Low	92	92.0	93	93.0	185	92.5
Middle	8	8.0	7	7.0	15	7.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	0.072	0.788

No significant differences noted between cases and controls (P=0.7)

TABLE :4 MARITAL STATUS:

Marital Status	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Unmarried	20	20.0	25	25.0	45	22.5
Married	80	80.0	75	75.0	155	77.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	.717	0.397

No significant differences noted between cases and controls (p=0.397).

TABLE :5 EDUCATION:

Education level	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Primary	12	12.0	15	15.0	27	13.5
Middle	27	27.0	44	44.0	71	35.5
SSLC	33	33.0	25	25.0	58	29.0
HSc	17	17.0	8	8.0	25	12.5
Diploma/ Degree	11	11.0	8	8.0	19	9.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	9.221	0.056

There is no significant differences in the education level with P=0.05 is seen. In Primary level of education 12 (12%) in case and 15 (15%) in the controls, in middle school level education 27 (27%) in case and 44(44%) in the controls, in

SSLC level 33 (33%) in case and 25 (25%) in the controls, in HSC 17 (17%) in case and 8(8%) in controls and in degree/diploma level 11(11%)in the case and 8(8%) in the control groups.

TABLE :6 OCCUPATION:

Occupation	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Unemployed	11	11.0	11	11.0	22	11.0
Housewife	28	28.0	29	29.0	57	28.5
Driver	6	6.0	4	4.0	10	5.0
Skilled	15	15.0	13	13.0	28	14.0
Semi skilled	14	14.0	22	22.0	36	18.0
Unskilled	16	16.0	11	11.0	27	13.5
Salaried	4	4.0	5	5.0	9	4.5
Student	6	6.0	5	5.0	11	5.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	3.466	0.839

No significant differences noted (P=0.8).

TABLE:7 RELIGION.

Religion	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Hindu	89	89.0	92	92.0	181	90.5
Muslim	4	4.0	2	2.0	6	3.0
Christian	7	7.0	6	6.0	13	6.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	0.793	0.673

No significant differences noted (P=0.6).

Chi-Square test to compare proportions between Groups:

TABLE :8 CHILDHOOD ADVERSITY (CA) BY CHILDHOOD TRAUMA QUESTIONNAIRE(CTQ).

CTQ	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Yes	49	49.0	20	20.0	69	34.5
No	51	51.0	80	80.0	131	65.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	18.608	<0.001

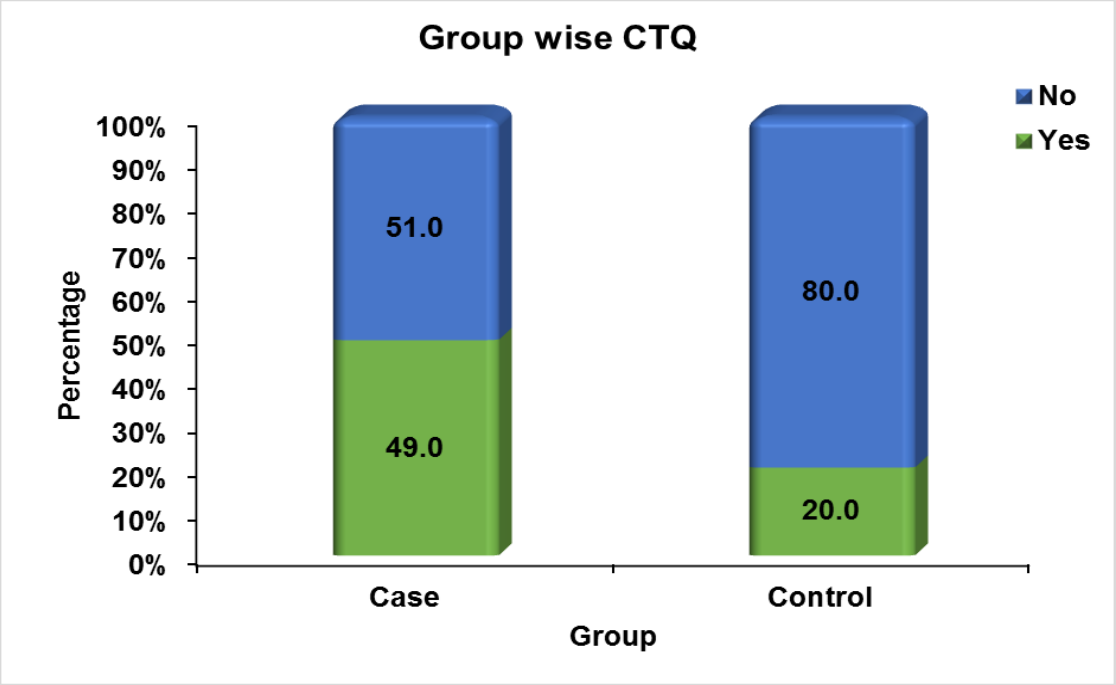


Table :8 shows the comparison of childhood adversities between cases and control group. In this study , we used the dichotomous clinical cut-off score in CTQ to differentiate between the presence and absence of childhood

adversities. The cut-off points were 8 or higher for physical abuse, 8 or higher for physical neglect, 8 or higher for sexual abuse, 10 or higher for emotional abuse, and 15 or higher for emotional neglect. The participants having the score above the cut-off value will be considered as individuals having the childhood adversities. we found that 49 euthymic BPAD patients (49%) and 20 healthy controls (20%) were having the history of childhood adversities. We arrived the p value , p <0.001 which is significant.so the history of childhood adversity is more common in the bipolar patients than healthy controls .out of 49 BPAD patients having childhood adversity 2 patients had 2 types of childhood adversities, rest 47 had one type of childhood adversity.

TABLE:9 PHYSICAL ABUSE

Physical Abuse	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Yes	11	11.0	4	4.0	15	7.5
No	89	89.0	96	96.0	185	92.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	3.532	0.060

On comparing the each categories of the childhood adversities, in the physical abuse 11 in the euthymic bipolar patients (11%) and 4 in the controls (4%) were having the history of physical abuse. P value p=0.06 which is not significant.

TABLE:10 PHYSICAL NEGLECT

Physical Neglect	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Yes	7	7.0	2	2.0	9	4.5
No	93	93.0	98	98.0	191	95.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	-	0.170

On comparing the physical neglect among two groups, 7 in BPAD patients (7%) and 2 in the controls (2%) had the history of physical neglect, p value is p=0.17 which is not significant. Indicating that there is no significant difference between the case and control.

TABLE:11 EMOTIONAL ABUSE

Emotional Abuse	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Yes	20	20.0	7	7.0	27	13.5
No	80	80.0	93	93.0	173	86.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	7.236	0.007

On comparing the emotional abuse between the cases and controls, 20 in the BPAD patients (20%) and 7 in the healthy controls (7%).The p value p=0.007 which is significant implicating that emotional abuse occurs more in the BPAD patients than in controls.

TABLE :12 EMOTIONAL NEGLECT

Emotional Neglect	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Yes	10	10.0	5	5.0	15	7.5
No	90	90.0	95	95.0	185	92.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	1.802	0.179

On comparing the emotional neglect, 10 in the BPAD case (10%) and 5 in the controls (5%) showed a positive history regarding the emotional neglect. The p value is p=0.179 which is non significant implying that there is no significant between these two groups.

TABLE :13 SEXUAL ABUSE

Sexual Abuse	Group					
	Case		Control		Total	
	N	%	N	%	N	%
Yes	3	3.0	2	2.0	5	2.5
No	97	97.0	98	98.0	195	97.5
Total	100	100.0	100	100.0	200	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	-	0.999

On the comparing the sexual abuse between the cases and control group.In the sexual abuse, 3 in the BPAD patients(3%) and 2 in the controls (2%) had the history. The p value p=0.99 which is not significant implying that there is no difference between the groups.

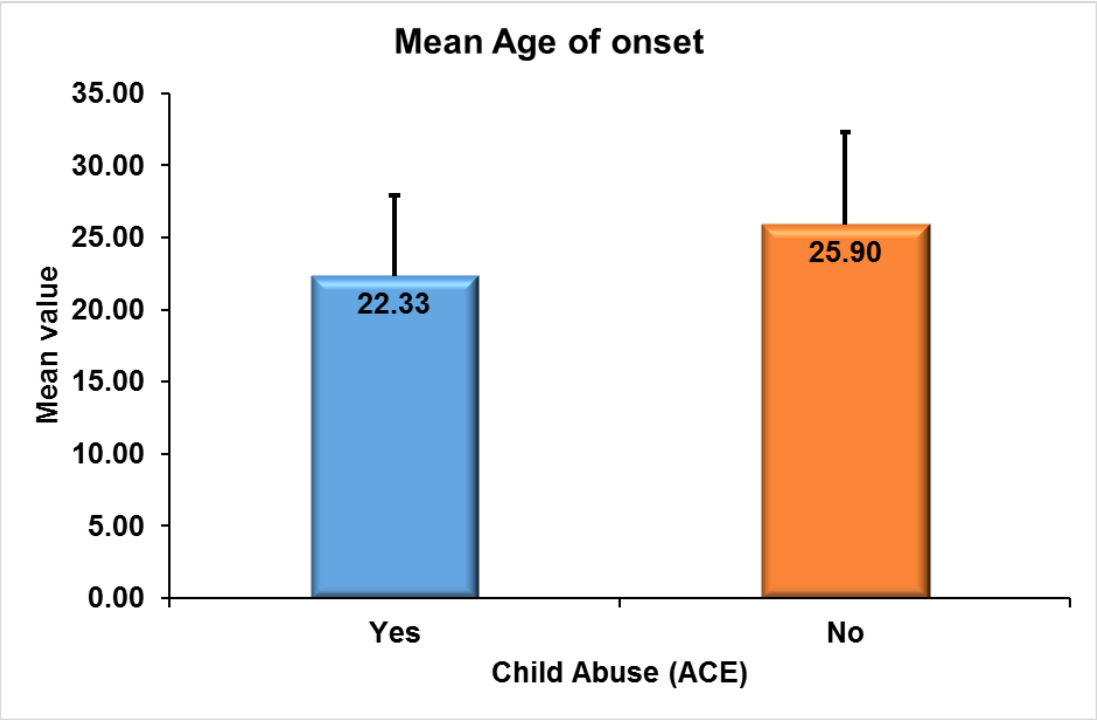
TABLE :14 Independent samples T-Test to compare mean age between BPAD patients with childhood adversity and BPAD patients without childhood adversity

Group	Variables	Childhood Abuse	N	Mean	Std. Dev	t-Value	P-Value
Case	Age of onset	Yes	49	22.33	5.558	2.980	0.004
		No	51	25.90	6.391		
	Duration of illness	Yes	49	9.35	5.710	0.563	0.575
		No	51	8.67	6.346		
	No of Episodes	Yes	49	4.80	3.422	2.616	0.010
		No	51	3.20	2.661		

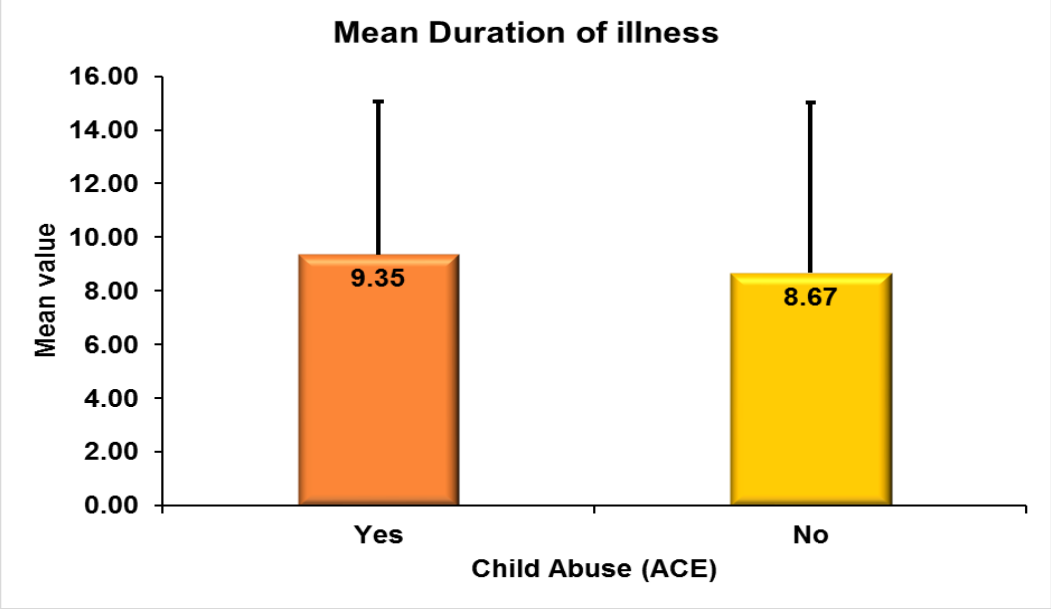
Table :14 shows the comparison of age of onset, duration of illness, number of episodes between the BPAD patients with CA and BPAD patients without CA. on comparing the two groups that is BPAD patients with childhood adversities and those BPAD patients without adversities.

Age of onset of the illness:

The mean age is 22.33 ±5.55 years for BPAD patients with childhood adversities (CA) and mean age is 25.90 ±6.3 years for BPAD patients without childhood adversities(CA), p=0.04 which is significant value implying that BPAD patients having childhood adversity have earlier age of onset when compared to those without CA.

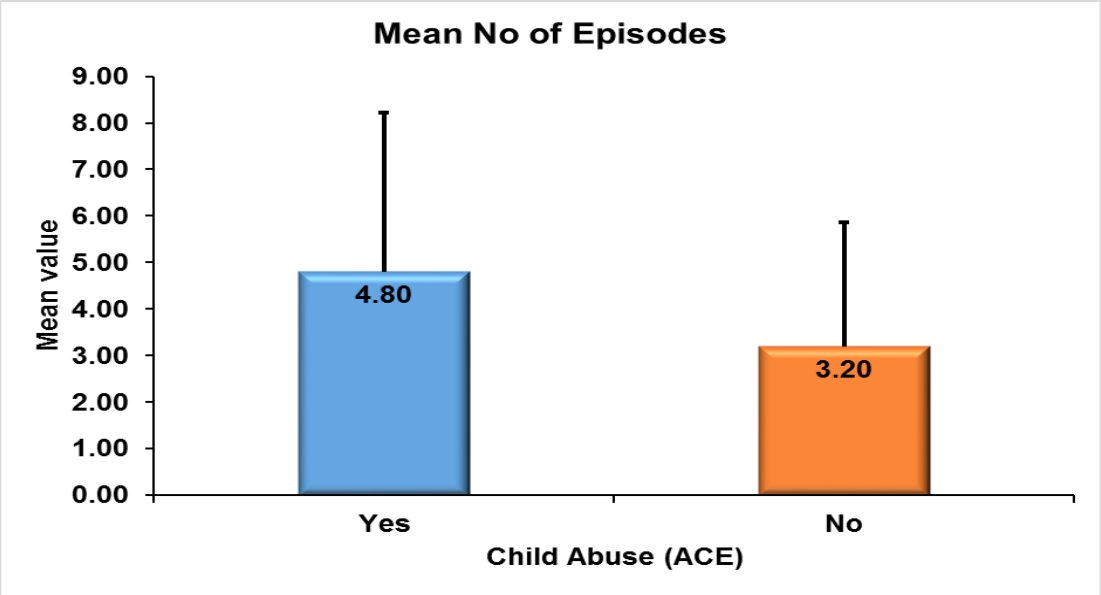


Duration of illness:



The mean duration of illness is 9.35 ± 5.7years for BPAD patients with CA and the mean duration of illness is 8.6± 6.3 years in the BPAD patients without CA. the p value is p=0.57 which is not significant. This shows that there is no difference between the two groups .

Number of Episodes:



The means number of episodes 4.8± 3.4 in the BPAD patients with CA and for BPAD patients without CA is3.2 ± 2.6 episodes. P value is p=0.01 which is significant, indicating that BPAD patients with CA have more no. of .episodes than those without CA.

Chi-Square Test to compare proportions between Bipolar patients with Childhood Adversity(CA) and Bipolar disorder patients without childhood Adversity (CA).

TABLE :15 PSYCHOTIC SYMPTOMS.

Psychotic symptoms	Childhood Abuse					
	Yes		No		Total	
	N	%	N	%	N	%
Yes	48	98.0	49	96.1	97	97.0
No	1	2.0	2	3.9	3	3.0
Total	49	100.0	51	100.0	100	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	-	0.999

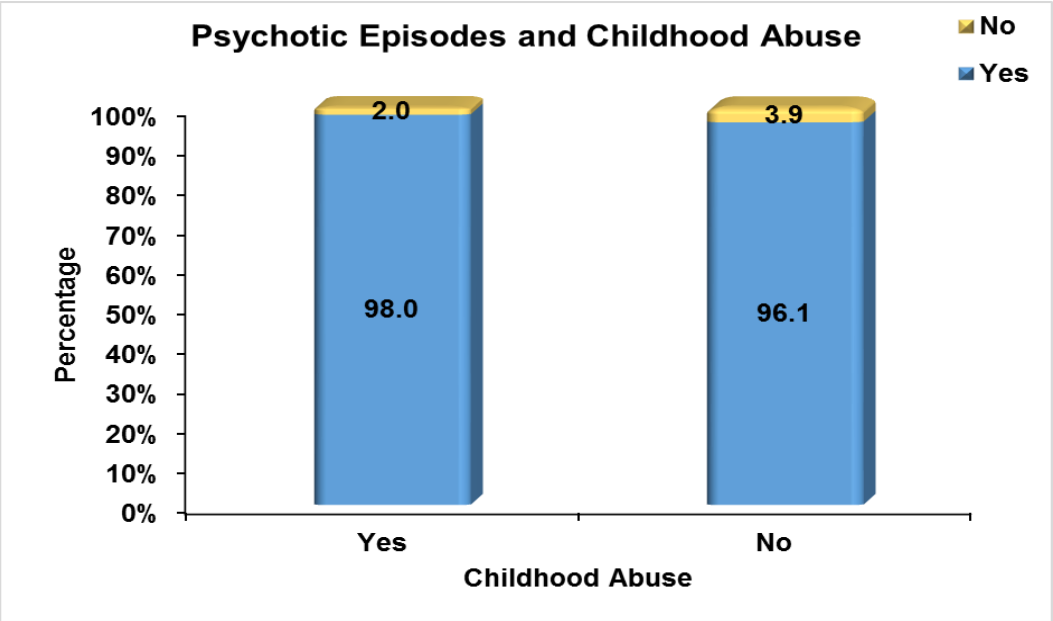


Table :15 shows the comparison of psychotic episodes between BPAD patients with CA and without CA. Regarding the psychotic episodes, 48 in the BPAD patients with CA (98%) and 49 In the BPAD without CA (96.1%) had psychotic symptoms .the p value p=0.999 implying that there is no differences between the two groups.

TABLE :16 AGGRESSION

Aggression	Childhood Abuse					
	Yes		No		Total	
	N	%	N	%	N	%
Yes	48	98.0	46	90.2	94	94.0
No	1	2.0	5	9.8	6	6.0
Total	49	100.0	51	100.0	100	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	-	0.205

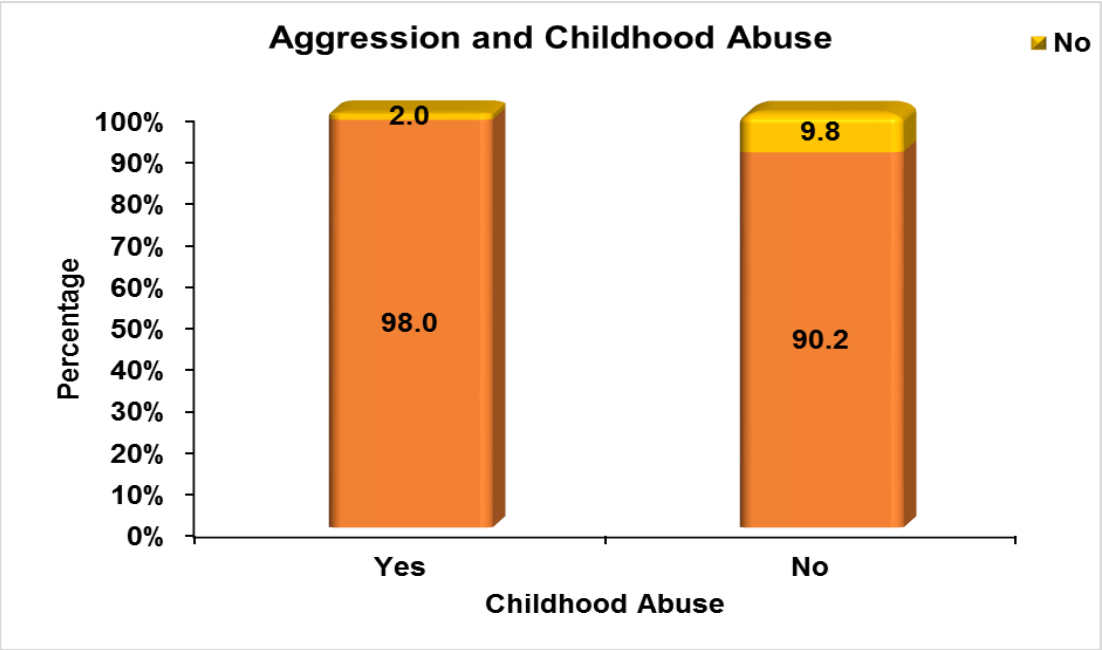


Table :16 shows the comparison of aggression between BPAD with CA and without CA. On comparing the aggression between two groups, 48 in the BPAD with CA(98%) and 46 in the BPAD without CA (90.2) had aggression during the previous episodes. The p value is p=0.205 which is not significant . this indicates that there is no differences between two groups.

TABLE :17 SUICIDAL ATTEMPTS

Suicidal attempts	Childhood Abuse					
	Yes		No		Total	
	N	%	N	%	N	%
Yes	39	79.6	14	27.5	53	53.0
No	10	20.4	37	72.5	47	47.0
Total	49	100.0	51	100.0	100	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	27.274	<0.001

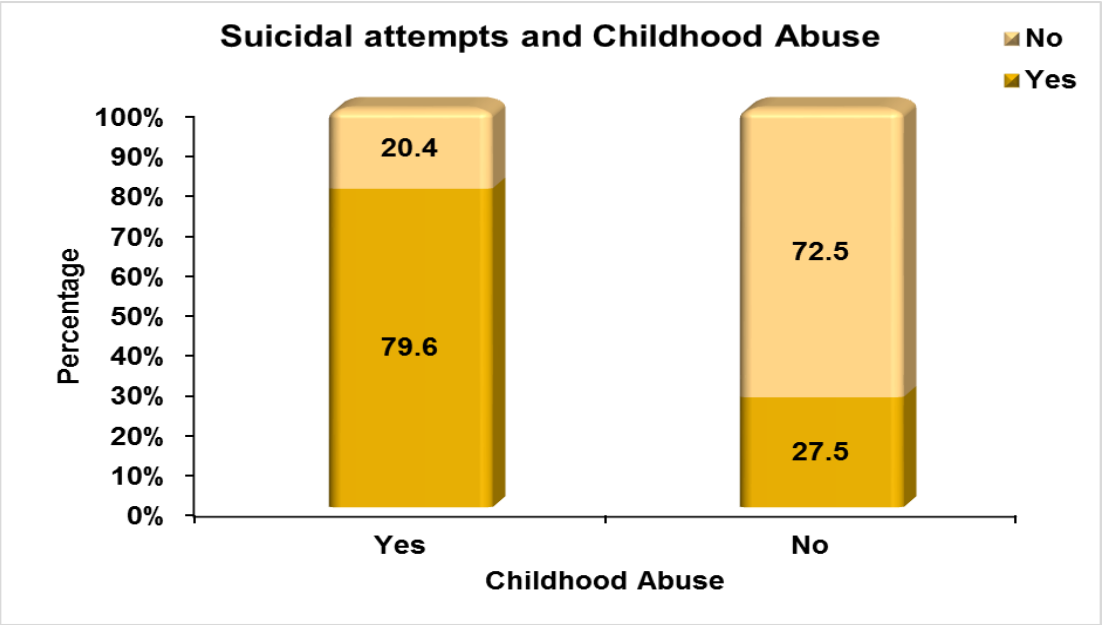


Table :17 shows the suicide attempt between BPAD patients with CA and without CA. On comparing two groups, 39 BPAD patients with CA (79.6%) had suicide attempts and 14 in the BPAD patients without CA.(27.5%) . The p value is < 0.001 which is significant this shows the suicide attempts is more common in BPAD patients with CA than those without CA.

TABLE :18 TREATMENT

Medications	Childhood Abuse					
	Yes		No		Total	
	N	%	N	%	N	%
AP	0	.0	8	15.7	8	8.0
AP + AD	0	.0	2	3.9	2	2.0
AP + MS	30	61.2	32	62.7	62	62.0
AP + MS + AD	19	38.8	8	15.7	27	27.0
No Drugs	0	.0	1	2.0	1	1.0
Total	49	100.0	51	100.0	100	100.0

AP- Antipsychotics; MS- Mood stabiliser; AD-Anti depressant.

Chi-Square Test	Value	P-Value
Fisher's Exact Test	15.607	0.001

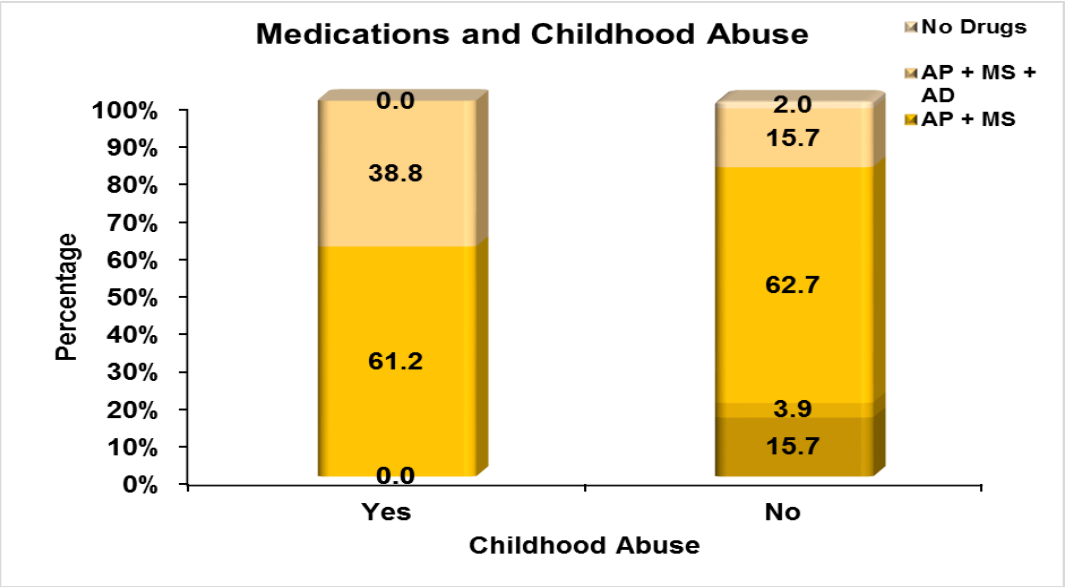


Table :18 shows the medication data in the maintenance phase between BPAD patients with CA and BPAD patients without CA. In the BPAD patients with CA, no patients were on only antipsychotics or on combinations of antipsychotics and antidepressant, 30 patients(61.2%) were on the combination of antipsychotics and mood stabiliser and 19 patients (38.8%) were on the combination treatment of antipsychotics ,mood stabilisers and antidepressants. In BPAD patients without CA 8 patients (15.7%)were on only antipsychotics,2 patients(3.9%) were on the combination of antipsychotics and antidepressants, 32 patients(62.7%) were on the combinations of antipsychotics and mood stabiliser and 8 patients(15.7%) were on the combinations of antipsychotics, mood stabilisers and antidepressants. The p value is $p<0.001$ indicating that there is a differences between these two groups regarding the treatment more of the patients with CA were on the combinations than the monotherapy.

TABLE :19 SUBSTANCE USE:

Substance use	Childhood Abuse					
	Yes		No		Total	
	N	%	N	%	N	%
Alcohol	10	20.4	7	13.7	17	17.0
None	39	79.6	44	86.3	83	83.0
Total	49	100.0	51	100.0	100	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	0.791	0.374

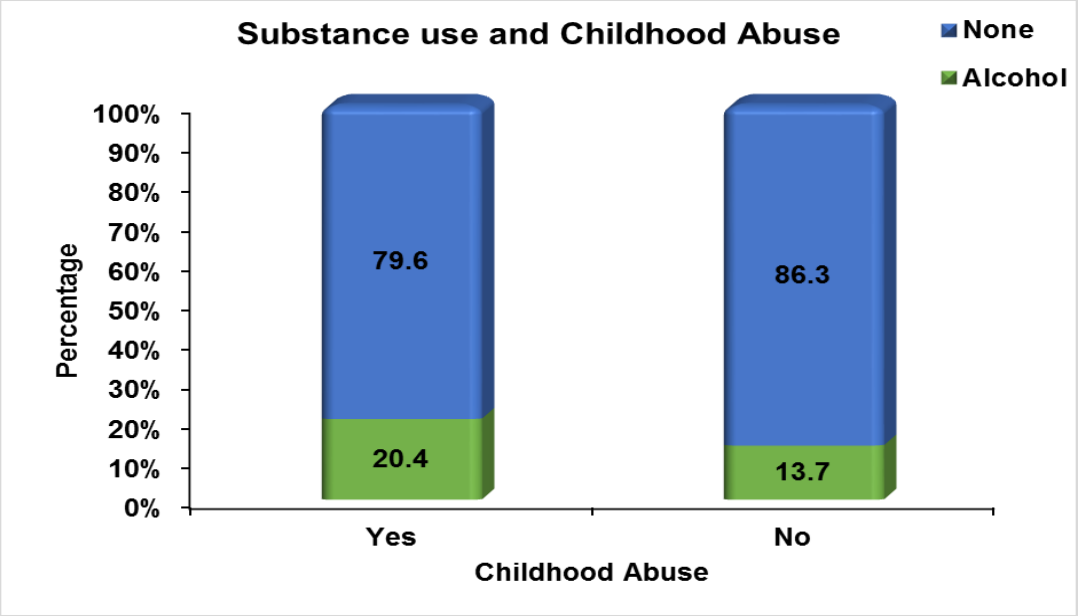


Table: 19 shows comparison of substance use . 10 in the BPAD patients with CA (20.4%) and 7 in the BPAD patients without CA (13.7%) had substance use disorder. Using the Chi-square test, the p value p= 0.37 which is not significant, there was no difference between the groups.

TABLE :20 GENERAL FUNCTIONING:

General functioning	Bipolar with Child Abuse (CTQ)					
	Yes		No		Total	
	N	%	N	%	N	%
≤ 60	46	93.9	15	29.4	61	61.0
> 60	3	6.1	36	70.6	39	39.0
Total	49	100.0	51	100.0	100	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	43.65	<0.001

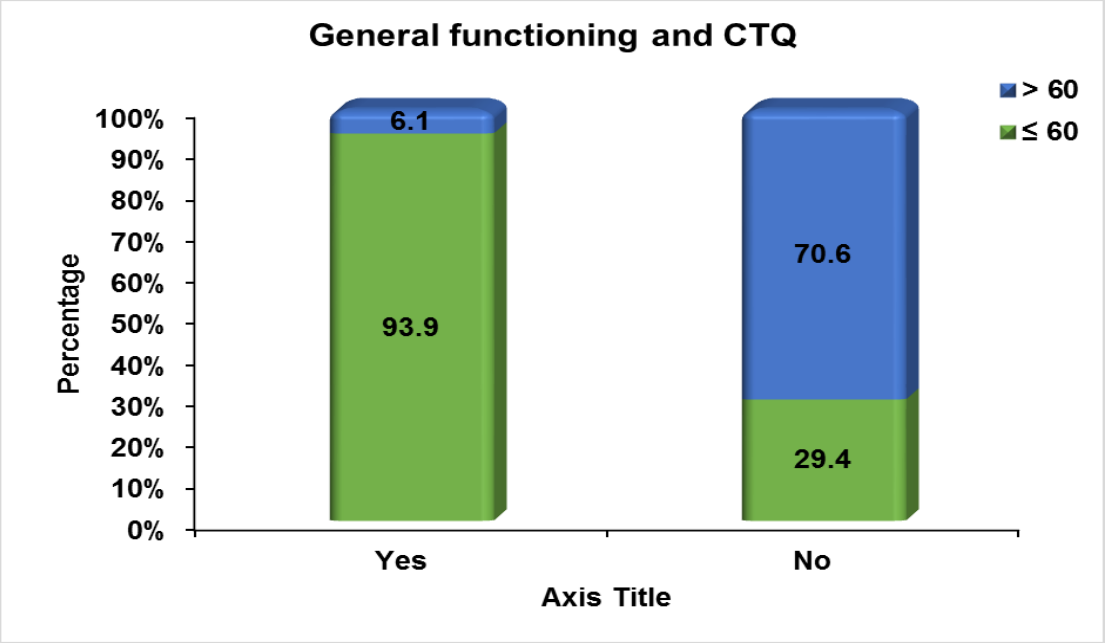


TABLE 20 shows the comparison of general functioning , 46 in BPAD patients with CA(93.9%) and 15 in BPAD patients without adversity (29.4%) had poor level of functioning. Using the Chi-square test, p value $p< 0.001$, which is statistically significant.

One way ANOVA to compare mean values between different types of Child Adversity(CA) among Cases(BPAD patients) with CA

TABLE : 21 Descriptive statistics

Variable	Type of Abuse	N	Mean	Std. Dev	F-Value	P-Value
Age of onset	Physical Abuse	11	18.91	4.392	2.010	0.110
	Physical Neglect	7	23.71	7.342		
	Emotional Abuse	18	23.44	5.404		
	Emotional Neglect	10	24.10	5.021		
	Sexual Abuse	3	19.00	2.646		
	Total	49	22.33	5.558		
Duration of illness	Physical Abuse	11	6.55	2.806	0.977	0.430
	Physical Neglect	7	11.00	7.916		
	Emotional Abuse	18	10.44	6.591		
	Emotional Neglect	10	9.20	5.029		
	Sexual Abuse	3	9.67	2.887		
	Total	49	9.35	5.710		
No of Episodes	Physical Abuse	11	3.27	1.272	1.363	0.262
	Physical Neglect	7	6.71	4.923		
	Emotional Abuse	18	5.28	3.832		
	Emotional Neglect	10	4.70	3.057		
	Sexual Abuse	3	3.33	1.528		
	Total	49	4.80	3.422		

Table 21: shows the effect of various subtypes of childhood adversities on the clinical presentation like age of onset, duration of illness , no. of episodes using one-way ANOVA analysis .

AGE OF ONSET

The physical abuse individuals had earlier age of onset with mean age18.94 ± 4.3 years and the emotional abused individual had mean age of onset as 24 ±5 years. But the p value is 0.11 implying that there is no difference between the subtypes influencing the age of onset.

DURATION OF ILLNESS:

The duration of illness more in the physical neglect individuals (11± 7 years) where as less in the physical abused individuals (6.55 ± 2.8 years). The p value is p=0.43 using one way ANOVA analysis showing there is no differences in the subtypes of childhood adversities.

NUMBER.OF.EPISODES:

The physical neglected individuals have more number of episodes (6.71 ± 4.9) and the physical abused patients have less number of episodes 3.27 ±1.2. the p value is p=0.2 showing no differences between the subtypes of childhood adversities in the no. of. episodes.

Chi-Square test to compare proportions between different types of Child adversity among Cases (BPAD patients) with CA

TABLE :22 PSYCHOTIC SYMPTOMS.

Psychotic Episodes	Bipolar with Child Abuse (CTQ)											
	Physical Abuse		Physical Neglect		Emotional Abuse		Emotional Neglect		Sexual Abuse		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	10	90.9	7	100.0	18	100.0	10	100.0	3	100.0	48	98.0
No	1	9.1	0	.0	0	.0	0	.0	0	.0	1	2.0
Total	11	100.0	7	100.0	18	100.0	10	100.0	3	100.0	49	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	4.543	0.633

Table 22**:** shows the effects of different types of CA on the psychotic symptoms, all types have the psychotic symptoms . using the chi-square test, p value is p=0.633 which is not significant showing no differences between the subtypes.

TABLE :23 AGGRESSION

Aggression	Bipolar with Child Abuse (CTQ)											
	Physical Abuse		Physical Neglect		Emotional Abuse		Emotional Neglect		Sexual Abuse		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	11	100.0	6	85.7	18	100.0	10	100.0	3	100.0	48	98.0
No	0	.0	1	14.3	0	.0	0	.0	0	.0	1	2.0
Total	11	100.0	7	100.0	18	100.0	10	100.0	3	100.0	49	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	5.447	0.204

Table 23**:** shows the proportion of various subtypes of CA having aggression. Almost all subtypes (100%) have aggression symptoms during the episodes except physical neglect individuals have 85.7%. Using the Chi-square test, the p value is p=0.204 which is not significant, showing that there is no statistically difference between the subtypes.

TABLE :24 SUICIDAL ATTEMPTS

Attempted Suicide	Bipolar with Child Abuse (CTQ)											
	Physical Abuse		Physical Neglect		Emotional Abuse		Emotional Neglect		Sexual Abuse		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	9	81.8	5	71.4	13	72.2	9	90.0	3	100.0	39	79.6
No	2	18.2	2	28.6	5	27.8	1	10.0	0	.0	10	20.4
Total	11	100.0	7	100.0	18	100.0	10	100.0	3	100.0	49	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	2.014	0.780

Table 24: shows the proportion of various subtypes of CA had suicidal attempts . 100 % of the sexual abused patients had suicidal attempts and the physical neglected patients have lower suicidal attempts 71.4%. using the Chi-square test, p value is p=0.78 showing no statistical difference between the subtypes.

TABLE : 25 TREATMENT

Medications	Bipolar with Child Abuse (CTQ)											
	Physical Abuse		Physical Neglect		Emotional Abuse		Emotional Neglect		Sexual Abuse		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
AP	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
AP + AD	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
AP + MS	7	63.6	5	71.4	12	66.7	6	60.0	0	.0	30	61.2
AP+MS+AD	4	36.4	2	28.6	6	33.3	4	40.0	3	100.0	19	38.8
No Drugs	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Total	11	100.0	7	100.0	18	100.0	10	100.0	3	100.0	49	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	4.753	0.313

Table 25: shows the various treatment combinations for different types of CA. they were mostly under combinations of antipsychotics and mood stabilisers or combinations of antipsychotics and mood stabiliser and antidepressants. No patients were on only antipsychotics or antipsychotics with antidepressants or no drugs. Using Chi-square test, the p value is p=0.313 showing no differences between the subtypes of CA.

TABLE : 26 SUBSTANCE USE

Substance use	Bipolar with Child Abuse (CTQ)											
	Physical Abuse		Physical Neglect		Emotional Abuse		Emotional Neglect		Sexual Abuse		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Alcohol	1	9.1	1	14.3	6	33.3	2	20.0	0	.0	10	20.4
None	10	90.9	6	85.7	12	66.7	8	80.0	3	100.0	39	79.6
Total	11	100.0	7	100.0	18	100.0	10	100.0	3	100.0	49	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	2.875	0.601

TABLE 26: shows the proportion of individuals having substance use in the subtypes of CA. The p value is p=0.601 showing no differences in the subtypes of CA in the substance use.

TABLE : 27 GENERAL FUNCTIONING

General functioning	Bipolar with Child Abuse (CTQ)											
	Physical Abuse		Physical Neglect		Emotional Abuse		Emotional Neglect		Sexual Abuse		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
<= 60	10	90.9	7	100.0	16	88.9	10	100.0	3	100.0	46	93.9
> 60	1	9.1	0	.0	2	11.1	0	.0	0	.0	3	6.1
Total	11	100.0	7	100.0	18	100.0	10	100.0	3	100.0	49	100.0

Chi-Square Test	Value	P-Value
Fisher's Exact Test	2.117	0.893

TABLE 27: shows the level of functioning in the various subtypes of CA. poor functioning noted in all individuals in sexual abuse, physical neglect, emotional neglect 100%.using the Chi-square test, the p value p=0.89 .This shows no differences in the subtypes of CA in the functioning.

TABLE : 28 Logistic Regression for Bipolar Disorder (CASES)

Factors		Case N (%)	Unadj OR	95% CI for OR		P-Value
				LL	UL	
Childhood Abuse	No (Ref)	51 (38.9)	1.00			
	Yes	49 (71.0)	3.84	2.052	7.198	<0.001
Physical Abuse	No (Ref)	89 (48.1)	1.00			
	Yes	11 (73.3)	2.97	0.911	9.655	0.071
Physical Neglect	No (Ref)	93 (48.7)	1.00			
	Yes	7 (77.8)	3.69	0.747	18.211	0.109
Emotional Abuse	No (Ref)	80 (46.2)	1.00			
	Yes	20 (74.1)	3.32	1.335	8.261	0.010
Emotional Neglect	No (Ref)	90 (48.6)	1.00			
	Yes	10 (66.7)	2.11	0.695	6.416	0.188
Sexual Abuse	No (Ref)	97 (49.7)	1.00			
	Yes	3 (60.0)	1.51	0.248	9.270	0.653

TABLE 28: shows any association between the childhood abuse (total), subtypes and the bipolar affective disorder using logistics regression. Child abuse (total) have odds ratio 3.84(CI 2.05-7.1) and p value < 0.001 showing that childhood abuse 3.84 times more common in bipolar disorder than others. Emotional abuse have odds ratio 3.32 (CI1.33-8.2), p value <0.01 implying that emotional abused individuals have 3.32 times more common in bipolar disorder than others. Other subtypes are not statistically significant.

TABLE : 29 Logistic Regression for Attempted Suicide.

Factors		Attempted Suicide N (%)	Unadj OR	95% CI for OR		P-Value
				LL	UL	
Childhood Abuse	No (Ref)	14 (27.5)	1.00			
	Yes	39 (79.6)	10.31	4.076	26.067	<0.001

TABLE 29: shows that the BPAD patients with CA have increased suicidal attempts than those without CA with odds ratio 10.31 (CI 4.07-26.06) and p value p <0.001 which is statistically significant.

TABLE : 30 Logistic Regression for General functioning.

Factors		General functioning (≤60) N (%)	Unadj OR	95% CI for OR		P-Value
				LL	UL	
Childhood Abuse	No (Ref)	15 (29.4)	1.00			
	Yes	46 (93.9)	36.80	9.889	136.94	<0.001

TABLE 30: shows that BPAD patients with CA have poor functioning than those without CA with odds ratio 36.80 (CI 9.8-136.94) and p value p **<**0.001. this shows statistically significance.

TABLE : 31 GENDER DIFFERENCE IN THE BPAD PATIENTS WITH CA AND BPAD PATIENTS WITHOUT CA:

Childhood Abuse	Gender					
	Male		Female		Total	
	N	%	N	%	N	%
Yes	26	50.0	23	47.9	49	49.0
No	26	50.0	25	52.1	51	51.0
Total	52	100.0	48	100.0	100	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	0.043	0.835

TABLE 31: shows that there no gender differences between the BPAD patients with CA and those BPAD patients without CA. using Chi-square test, the p value is p=0.835 which is not significant.

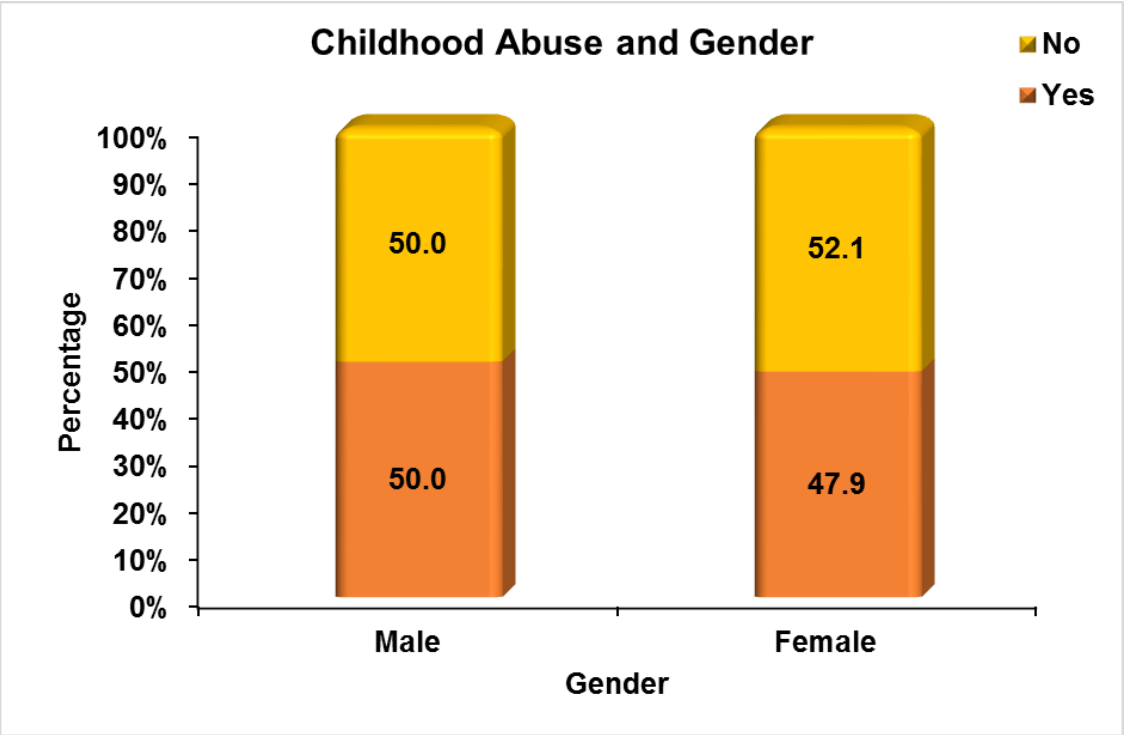


TABLE :32 GENDER DIFFERENCE BETWEEN THE CASE AND CONTROL:

Childhood Abuse	Gender					
	Male		Female		Total	
	N	%	N	%	N	%
Yes	32	30.8	37	38.5	69	34.5
No	72	69.2	59	61.5	131	65.5
Total	104	100.0	96	100.0	200	100.0

Chi-Square Test	Value	P-Value
Pearson Chi-Square	1.335	0.248

TABLE32: shows that there is no gender differences in the childhood abuse between the case and controls. The p value is p= 0.248 which is statistically significant.

DISCUSSION

The aim of the current study was to assess the role of childhood adversity in the clinical presentation of bipolar affective disorder by comparing the proportion of childhood adversities in the bipolar affective disorder patients under remission with the age, sex matched healthy controls. As well as to compare the clinical presentation, course, outcome of the BPAD patients with CA and those with BPAD patients without CA.

The study sample consist of 100 cases bipolar disorder in remission (euthymic state) and 100 healthy controls .To minimise confounding factors both the groups were matched for age, sex, socioeconomic status.

FINDINGS IN SOCIO-DEMOGRAPHIC DATA:

In our study age, sex, socioeconomic status were matched for cases and controls. Most of the cases (BPAD patients in remission) were married and there was no significant difference in the marital status compared to the controls.

Regarding education status, most of the cases and control were below high school education, which shows a no significant difference between the groups. These results are consistent with the study of Santosh Ramdurg, Santosh Kumar 2016 [171]in which he stated that bipolar disorder is highly prevalent among people with lower education, house wives, farmers and mostly married.

In occupation, two groups have no difference. In our study we found that bipolar disorder was not associated with unemployment . But Kumar PN et al [172] stated in his study that bipolar patients with substance use were predominantly unemployed.

FINDINGS IN THE COMPARISION OF CHILDHOOD ADVERSITIES BETWEEN CASES AND CONTROLS:

In our study we found that the proportion of childhood adversities is high in the bipolar patients(49%) than the controls(20%). On comparing the proportion of various subtypes of childhood adversities between cases (BPAD patients in remission or Euthymia) and controls., only the emotional abuse subtype showed a statistical difference between two groups .This finding is consistent with Stuart watson et al 2014 [71.] In his study he found high rates of childhood trauma in bipolar disorder compared to controls. Similarly, Garno et al2005[65] , found history of child abuse in 51% in the adults with bipolar disorder - with emotional abuse in 37 %, physical abuse in 24%, emotional neglect in 24%, sexual abuse in 21% and physical neglect in 12%. Similarly, Etain et al 2010 [74] in his study found that emotional abuse is strongly associated with bipolar disorder.

In our study ,the proportion of childhood abuse in healthy controls is 20 %. In contrast ,in the study by Bernstein DP et al 1998 [165] ,the proportion of childhood abuse in healthy controls was 31.9% . The differences may be due to under reporting of abuse in our culture.

FINDINGS ON COMPARING THE CHILDHOOD ADVERSITIES IN THE GENDERS IN CASE AND CONTROLS:

In our study, there is no gender difference in childhood adversity between cases and controls. Moreover there is no gender difference in the childhood adversities between BPAD patients with CA and those without CA, male and female are equally affected. This finding is consistent with reports of U.S. department of health and human services , 2008 [173] which states that maltreatment occurs in a similar rate in both genders. But in contrast with the findings of Etain et al 2013 [150] ; Fisher et al 2009[175] whose studies showed more reporting of childhood trauma in females than males. In this line, Beth E et al 2001[75] observed that sexual abuse was more in women than in men. Fisher et al 2009[174] also showed high reporting of childhood trauma in females than males in healthy populations.

FINDINGS IN THE CLINICAL PRESENTATIONS OF THE ILLNESS WITHIN BPAD PATIENTS WITH CA AND WITHOUT CA:

In our study, we find a statistical significant difference in the age of onset of bipolar illness in BPAD patients with childhood adversities than those without adversities. The BPAD patients with CA present at early age, earlier age of onset of illness when compared to BPAD patients without CA. Santosh Kumar 2016 [171] in his study reports stated mean age of onset is 27.38±12.7 years. This finding is consistent with Etain et al 2013 [150], who in his study observed early age of onset of bipolar illness in patients with history of

childhood abuse. Monica Aas et al 2016[101] in their review article reported earlier age of onset.

In our study, we did not find statistical significant differences in the duration of illness between the BPAD patients with CA than those without CA . This finding is in contrast to the study by Romero et al 2009 [108], who found that childhood abuse (particularly physical and sexual abuse) had a longer duration of bipolar illness. In a similar way, Jules angst et al in 2011[109] showed chronicity in illness with the patients having childhood adversity.

In our study, we found more number. of episodes in the BPAD patients with CA than BPAD without CA which is statistically significant. This finding is in line with findings of Kupka et al 2005 [110] who found that childhood abuse mainly physical, sexual abuse is associated with more number. of episodes. Similarly Brown et al 2005[90], Weber et al 2008[175] in their studies, reported more number. of . episodes in the bipolar patients with CA.

In our study, we found no differences in the psychotic episodes between the two groups BPAD patients with CA and without CA . Both groups had psychotic symptoms in their mood episodes. Similarly, Martine van Nierop et al in 2014 [124] found no significant association between any of the trauma and isolated psychotic symptoms like delusions and hallucinations. But there is a association with co- occurrence of hallucination and delusion and physical , sexual, emotional abuse, emotional neglect. . In contrast with PaulHammersley

et al 2003 [114], who said that childhood trauma is associated with auditory hallucinations but not with delusions.

In our study, we find no statistical differences in the aggression symptoms towards others, between BPAD patients with CA and without CA. This might be due to the fact that BPAD patients were brought to the hospital only after aggression symptoms started. Since this study is conducted in the institute, they might be brought after the aggression symptoms evolved. Garno JL et al in 2008 [137] found that childhood emotional abuse, physical àbuse , emotional neglect were associated with aggression scores . Manic and depression symptoms were associated with trait aggression in bipolar disorder . Bipolar patients with history of childhood adversity is associated with early onset of illness and more number of episodes. Moreover it is associated with comorbid substance abuse which also further leads to increase in aggression in bipolar patients .(Goodwin FK, Jamison KR 2007, Volavka J 2013, Pulay AJ 2008, Fazel Set al 2010) [130-133]

In our study we found that the suicidal attempts are more in the BPAD patients with CA than BPAD without CA which is statistically significant. This finding is in line with the findings of Leverich et al in 2003[138] who conducted a study with 648 bipolar disorder patients , found that bipolar patients with history of early traumatic stressors have more history of suicide attempt. Similarly Alvarez et al 2011[143] ,found that sexual abuse victims have twice the risk of committing suicide.

In our study, regarding the treatment in the maintenance phase we found that most of the BPAD patients with CA were on the combination treatments , like antipsychotics with mood stabiliser ,or antipsychotics with mood stabiliser and antidepressants. whereas the BPAD patients without CA were also on only antipsychotics, or antipsychotics with antidepressants in addition to above combinations which is statistically significant. . Prevalence of childhood trauma in BPAD is common and associated with poor outcome in BPAD and associated with poor response to mood stabilisers maintenance treatment(Sibel Cakir in 2016) [152] . Similarly Welli Lu in 2008 [94]suggested complex set of treatment for mood disorder with childhood adversity.

In our study, regarding the substance use we did not find statistically significant difference between BPAD patients with CA and those BPAD patients without CA. the reason may be in our study 48 BPAD patients were female (due to the cultural background of non consumption of alcohol among women) . Similarly Maniglio 2013 [176] demonstrated that the association of childhood trauma and substance use is not specific to bipolar disorder. In this line Etain et al 2013 [150] found no association of alcohol dependence and childhood adversity. In contrast, Goldstein et al in 2008[162] conducted a study with 249 adolescents with bipolar disorder and found that sexual and physical abuse was associated with substance use.

In our study, we find a statistically significant differences in the general functioning between the BPAD patients with CA and those without CA. The

BPAD patients with CA have poor functioning than those without CA . Similarly Welli Lu 2008 [94] found that mood disorder with early childhood adversity will have worst functional outcome. Conus et al in 2010[159] found that BPAD patients with sexual and physical trauma have poor premorbid functioning using Global assessment of functioning(GAF)and premorbid adjustment scale and in addition they have poor adherence to treatment. Sara et al in 2013 [161] , found a significant association between childhood trauma score and reduced psychosocial functioning (GAF). Mainly physical abuse has reduced GAF scores indicating reduced level of functioning. In contrast, Rucklidge et al in 2006 [157] conducted a study with 24 BPAD patients and found that there is no association between trauma and psychosocial functioning.

FINDINGS IN THE EFFECTS OF VARIOUS SUB TYPES OF CHILDHOOD ADVERSITIES :

In our study, we did not find any statistically significant differences in the subtypes of childhood adversities with regard to the age of onset, duration of illness, number of episodes. This finding is in contrast with Sara Larsson et al 2013 [161] which reports earlier age of onset mainly seen in emotional abuse/neglect and increased no. of episodes mainly reported in sexual and physical abuse. Daruy- filho L et al in 2011[42] conducted a review of 19 studies and found that childhood adversity is associated with early onset of bipolar disorder, particularly physical abuse as important risk factor in the worsening

clinical course of bipolar disorder. This non difference between the subtypes of childhood adversities may be due to small sample size.

In our study with regard to the psychotic episodes and aggression symptoms , we did not find differences in the subtypes of CA. In contrast, Garno JL et al in 2008 [137] conducted a study with 100 bipolar patients with childhood trauma questionnaire and found that childhood emotional abuse, physical àbuse , emotional neglect were associated with aggression scores . Carballo et al in 2008[141] showed that bipolar patients with family history of suicidal behaviour and history of childhood adversity like physical and sexual trauma were more associated with younger age of first suicide attempt, more number of suicide attempts, early onset of bipolar disorder, impulsivity, aggression, hospitalization compared to BPAD patients with only childhood trauma or none of the either factors. Laura Bevilacqua MD et al 2012 [167] found that childhood trauma, particularly physical abuse and variants of FKBP5 gene have significant influence in the aggression and violent behaviour.

In our study, regarding the suicidal attempt, 100 % was reported in the sexual abused patients, but there is no statistically significant differences between the subtypes of CA. Alvarez et al 2011[143] conducted found that the victims of emotional abuse have more hospitalization and sexual abuse victims have twice the risk of committing suicide. Leverich et al in 2003 [138] conducted a study with 648 bipolar disorder , and found that bipolar patients with history

of early traumatic stressors have more history of suicide attempts , particularly physical and sexual abuse is strongly associated with suicidal attempts.

In our study, we find no statistical differences between various subtypes of CA regarding treatment . Almost all were under combination therapy rather than monotherapy. In contrast, a prospective follow up study conducted by Sibel Cakir in 2016[152] in 135 BPAD patients using childhood trauma questionnaire and response to long term treatment (from records) found that there was no significant association between childhood trauma scores and response to lithium treatment. But elevated scores in emotional and physical abuse is associated with poor response to mood stabilisers treatment.

In our study we find no statistically significant differences between the various subtypes of childhood adversities regarding the substance use. In contrast to our findings, Brown et al in 2005[90] found in his study that victims of physical abuse and sexual abuse were associated with substances misuse.

Regarding the level of functioning, in our study we find no differences in the various sub types of CA. In contrast, Sara Larsson et al 2013 [161] showed the poor functioning is strongly associated with emotional abuse /neglect and physical abuse. Conus et al in 2010 [159] found that BPAD patients with childhood trauma , mainly sexual and physical trauma have poor premorbid functioning using Global assessment of functioning(GAF)and premorbid adjustment scale and in addition they have poor adherence to treatment.

FINDINGS IN THE VARIABLE ANALYSIS:

In our study, we found that the childhood adversity is associated positively with bipolar disorder, in particular emotional abuse was strongly associated with bipolar disorder. Similarly Bruno Etain et al 2010 [74], in his study (case-control) found that only emotional abuse was associated with bipolar disorder. Amy M.Neeran et al 2008 [93] suggested that negative parenting characteristics like emotional maltreatment by father, mother and physical maltreatment by mother were associated with diagnosis of bipolar disorder.

Our study showed a strong association of childhood abuse with suicidal attempt in bipolar patients. Similarly, Welli Lu et al 2008 [94] found that adverse childhood experiences was likely associated with early age of hospitalization, high risk behaviours , high suicidal attempts, worse mental health and poor functional outcomes in mood disorder. Mclntyre et al in 2008[140] in his study with 381 adult bipolar disorder found that childhood abuse is associated with suicidal ideation and suicidal attempts in bipolar patients.

Our study, showed that childhood adversity is associated with poor functioning in bipolar patients. BuckerJ et al in 2013 [160] found that BPAD patients with childhood trauma have poor cognition and significantly worse level of global functioning .In contrast , Rucklidge et al in 2006 [157]conducted a study with 24 BPAD patients and found that there is no association between trauma and psychosocial functioning .

CONCLUSION

In our study we found that the proportion of the childhood adversities in the bipolar disorder is more than the healthy controls .The childhood adversity is positively associated with bipolar disorder. The emotional abuse occurs in high proportion in the BPAD patients than the healthy controls. The emotional abuse is positively associated with BPAD patients. The BPAD patients with childhood adversity have early age of onset for the illness. The bipolar patients with childhood adversity have more number of mood episodes. There is increased suicide attempts in BPAD patients with childhood adversity and is positively associated .The BPAD patients with childhood adversity were under combination treatments than on monotherapy .There is a poor level of functioning in the BPAD patients with childhood adversity and is strongly associated .

STRENGTH OF THE STUDY

1. The study was conducted in a tertiary care hospital with good maintenance of records, with quantifying the severity of illness by scales in the longitudinal follow up.
2. The sample is matched for age, sex, socioeconomic status.
3. The scales used in the study, has good test-retest and interrater reliability.
4. The BPAD patients were taken under remission or euthymia to minimize the under or over reporting of traumatic events due to current mood symptoms.

LIMITATIONS

1. This is retrospective study, so more chances for recall bias in participants is present .
2. It is a case –control study done at one time, rather than a longitudinal study.
3. The study was conducted in a tertiary care hospital, predominantly people belonging to low socioeconomic status and have low education level, so results obtained cannot be generalised to the bipolar patient as a whole as well as to the community setting.
4. The sample size was small so more chances for type II errors. Larger sample size is required for more refined analysis and might have revealed more differences between groups.
5. The interviewer was not blinded to the subjects.

FUTURE DIRECTIONS

1. The childhood adversity does not lead only to mood disorder in adulthood. It may also lead to borderline personality disorder ,anxiety disorder, psychosis hence studying the entire psychological sequelae will benefit more.
2. The identification of neurobiological substrates, involved in the childhood adversity would lead to the development of more effective treatments for bipolar disorder.
3. Identification of childhood adversity in bipolar patients, with more severe illness will help in planning personalize treatment strategies so the childhood adversity should be routinely assessed in the bipolar patients in the clinical practice.
4. Longitudinal study with further follow up at periodic intervals will show a better results.

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THE ROLE OF CHILDHOOD ADVERSITIES IN CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER- A COMPARITIVE STUDY.

S.NO: OPNO: UNIT: DATE:

NAME: AGE: SEX:

EDUCATION: OCCUPATION:

INCOME: SOCIOECONOMIC STATUS:

MARRIED:

ADDRESSS:

PHONE NUMBER:

RELIGION: LANGUAGE:

NAME OF THE INFORMANT: RELATIONSHIP:

NO.OF YEARS LIVING WITH THE PATIENT:

FAMILY H/O:

1. MINI PLUS:
2. YOUNGS MANIA RATING SCALE (YMRS):

3. HAMILTONS DEPRESSION RATING SCALE (HAM-D):

4. CHILDHOOD TRAUMA QUESTIONNAIRE (CTQ):

5. AUDIT : TOTAL SCORE DEPENDENCE SCORE

6. GLOBAL ASSESSMENT OF FUNCTIONING (GAF):

7. AGE OF ONSET:

8. NO.OF EPISODES:

9. DURATION OF ILLNESS:

10. SUICIDE ATTEMPTS: IF YES NO. OF. EPISODES:

11. PYSCHOTIC EPISODES: HALLUCINATIONS
DELUSIONS

12. AGGRESSION:

13. MEDICATIONS ONLY ON MOOD STABILISER/ WITH ANTIPSYCHOTICS:

14. COMORBID SUBSTANCE USE:

INFORMATION TO PARTICIPANTS

Title: **A STUDY TO THE ROLE OF CHILDHOOD ADVERSTIES IN THE CLINICAL PRESENTATION OF BIPOLAR AFFECTIVE DISORDER -A COMPARATIVE STUDY.**

Principal Investigator: Dr.Sudhanthira devi. R.

Name of Participant:

Site: Institute Of Mental Health, Chennai

You are invited to take part in this research. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

What is the purpose of research.

Bipolar affective disorder is characterized by recurrent episodes of mania and depressive episodes with a inter episodic phase namely euthymia. Patient with bipolar disorders have high level of childhood adverse life events, particularly childhood maltreatment. We want to assess the proportion and role of childhood adversities in the clinical presentation (age of onset, duration of illness, number of.episodes, psychotic episodes, aggression, suicidal attempts, functioning) of bipolar affective disorder.

We have obtained permission from the Institutional Ethics Committee.

The study design and procedures:

18 - 60 years aged 100 euthymic bipolar affective disorder patient and 100- age, sex matched controls without any mental disorders taken. The following scales are given to them in one setting.

The instruments used are:

- MINI-Plus structured clinical interview.

- Semi- structured questionnaire for sociodemographic profile.
- Hamilton's depression rating scale.
- Young mania rating scale.
- Childhood trauma questionnaire.
- Semi –structured questionnaire for age of onset, duration of illness, number of episodes, aggression, psychotic episodes, suicidal attempts.
- Global assessement of functioning scale.
- Alcohol use disorder identification test (AUDIT)

. **Confidentiality of the information obtained from you**

You have the right to confidentiality regarding the privacy of your medical information (personal details, results of physical examinations, investigations, and your medical history). By signing this document, you will be allowing the research team investigators, other study personnel, Institutional Ethics Committee and any person or agency required by law like the Drug Controller General of India to view your data, if required.

The information from this study, if published in scientific journals or presented at scientific meetings,

will not reveal your identity.

How will your decision to not participate in the study affect you?

Your decision not to participate in this research study will not affect your medical care or your relationship with the investigator or the institution. You will be taken care of and you will not loose any benefits to which you are entitled.

Can you decide to stop participating in the study once you start?

The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during the course of the study without giving any reasons. However, it is advisable that you talk to the research team prior to discontinuing form the study.

Signature of Investigator Signature of Participant

Signature of the Guardian

Date Date

INFORMED CONSENT FORM

(This is only a guideline – Relevant changes to be made as per the study requirements)

Title of the study:"_A study to assess the role of childhood adversties in clinical presentation of bipolar affective disorder – Comparative study".

Name of the Participant:
_____.

Name of the Principal (Co-Investigator): _Dr. Sudhanthira devi.R.

Name of the Institution:Instituite of mental health
_____.

Name and address of the sponsor / agency (ies) (if any):__No_____
_____
_____.

Documentation of the informed consent

I _____ have read the information in this form (or it has been read to me). I was free to ask any questions and they have been answered. I am over 18 years of age and, exercising my free power of choice, hereby give my consent to be included as a participant in
"**__A study to assess the role of childhood adversities in clinical presentation of bipolar affective disorder – Comparative study".**

1. I have read and understood this consent form and the information provided to me.
2. I have had the consent document explained to me.
3. I have been explained about the nature of the study.
4. I have been explained about my rights and responsibilities by the investigator.
5. I have been informed the investigator of all the treatments I am taking or have taken in the past _____ months including any native (alternative) treatment.
6. I have been advised about the risks associated with my participation in this study.*****

7. I have not participated in any research study within the past _____month(s). *****
8. I have not donated blood within the past _____ months—Add if the study involves extensive blood sampling. *****

9. I am aware of the fact that I can opt out of the study at any time without having to give any reason and this will not affect my future treatment in this hospital. *****
10. I am also aware that the investigator may terminate my participation in the study at any time, for any reason, without my consent. *****
11. I hereby give permission to the investigators to release the information obtained from me as result of participation in this study to the sponsors, regulatory authorities, Govt. agencies, and IEC. I understand that they are publicly presented.
12. I have understand that my identity will be kept confidential if my data are publicly presented
13. I have had my questions answered to my satisfaction.
14. I have decided to be in the research study.

I am aware that if I have any question during this study, I should contact the investigator. By signing this consent form I attest that the information given in this document has been clearly explained to me and understood by me, I will be given a copy of this consent document.

For adult participants:

Name and signature / thumb impression of the participant (or legal representative if participant incompetent)

Name _____ Signature_____
Date_____

Name and Signature of impartial witness (required for illiterate patients):

Name _____ Signature_____
Date_____

Address and contact number of the impartial witness:

Name and Signature of the investigator or his representative obtaining consent:

Name _____ Signature_____
Date_____

Name and Signature of the investigator or his representative obtaining consent :
Name _____ Signature_____
Date_____

ஆராய்ச்சி ஒப்புதல் படிவம்

தலைப்பு : குழந்தை பருவ கஷ்டங்கள், இருதுருவ மனநிலை கோளாறு நோயின் மருத்துவ பண்பில் எவ்வாறு பங்கு வகிக்கிறது பற்றிய – ஓர் ஆய்வு

ஆய்வாளரின் பெயர்: மரு. இரா. சுதந்திராதேவி

பங்கு கொள்பவரின் பெயர் :

பங்கு பெறும் இடம்: அரசு மனநல காப்பகம், சென்னை

நான் இந்த படிவத்தை முழுவதுமாக படித்தேன். சந்தேகங்களை கேட்டு தெளிவுபடுத்திக் கொண்டேன். தயக்கமில்லாமல் நான் 18 வயதிற்கு மேற்பட்டவர் என்பதையும் இந்த ஆய்வாளர் மேற்கொள்ளும் குழந்தை பருவ கஷ்டங்கள், இருதுருவ மனநிலை கோளாறு நோயின் மருத்துவ பண்பில் எவ்வாறு பங்கு வகுக்கிறது என்பது பற்றிய - ஓர் ஆய்வு இதில் என்னை இணைத்துக் கொள்ள முழு சம்மதம் தெரிவிக்கிறேன்.

1. நான் இந்த ஒப்புதல் படிவத்தில் உள்ள அனைத்தையும் படித்து அறிந்துக் கொண்டேன்.
2. ஒப்புதல் படிவம் முழுவதுமாக விவரிக்கப்பட்டது
3. இந்த ஆய்வின் தன்மையை பற்றிய விவரங்கள் அறிந்துக் கொண்டேன்.
4. என்னுடைய உரிமைகளையும் மற்றும் பொறுப்புகள் என்ன என்பதையும் ஆய்வாளர் மூலம் அறிந்துக் கொண்டேன்.
5. நான் முன்பு எடுத்துக் கொண்ட எல்லா சிகிச்சை முறைகளையும் ஆய்வாளருக்கு தெரியப்படுத்தினேன்.
6. இந்த ஆய்வின் நாள் பங்கு பெறுவதின் மூலம் ஏற்படும் விளைவுகளையும் நான் அறிந்து கொண்டேன்.
7. நான் ஆய்வாளருக் என் முழு ஒத்துழைப்பையும் அளிப்பேன். மேலும் எனக்கு ஏதேனும் வித்தியாசமான அறிகுறிகள் தென்பட்டால் அதை உடனே ஆய்வாளருக்கு தெரிவிப்பேன்.
8. நான் இந்த முன்பு கடந்த _____ மாதங்களில் எந்தவித ஆய்வுகளிலும் பங்குபெறவில்லை.
9. நான் எந்த நேரத்திலும் இந்த ஆய்வில் இருந்து வெளியேராலாம் என்றும் இதனால் பிற்காலத்தில் எனக்கு மருத்துவமனையில்

கொடுக்கப்படும் சிகிச்சையில் எந்த பாதிப்பும் ஏற்படாது என்பதை அறிந்துள்ளேன்.

10. மேலும். எந்த நேரத்திலும் எந்த காரணத்திற்காவது ஆய்வாளர் இந்த ஆய்வின் பங்காளராய் இருப்பதிலிருந்து என்னை நீக்கலாம் என்பதையும் அறிந்துள்ளேன்.

11. என்னிடம் இந்த ஆய்வின் மூலம் பெறப்பட்ட தகவல்களின் ஆய்வாளர், உயர் அதிகாரிகளிடம் மற்றும் நெறிமுறை குழுவில் தெரியப்படுத்த சம்மதிக்கிறேன். அவர்கள் என்னுடைய முழு தகவல்களை ஆராய நேரலாம் என்று அறிந்துக் கொள்ளலாம்.

12. என்னுடைய தகவல்கள் வெளியிடும்பொழுது, என்னுடைய அடையாளங்கள் இரகசியமாக பாதுகாக்கப்படும் என்று அறிந்துக்கொண்டேன்.

13. நான் தானாகவே முன் வந்து இந்த ஆய்வில் என்னை ஒரு உறுப்பினராக இணைத்துக் கொள்கிறேன்.

இந்த ஆய்வில் எனக்கு கேள்விகள் எழுந்தால் அதை ஆய்வாளரிடம் கேட்டு அறிந்து கொள்ள வேண்டும் என்பதையும் தெரிந்துக் கொண்டேன். இந்த படிவத்தில் கையெழுத்து இடுவதன் மூலம் இந்த ஆய்வின் எல்லா கருத்துகளையும் நான் படித்து அறிந்து கொண்டேன் என்பதையும் தெரிவித்துக் கொள்கிறேன். இந்த படிவத்தின் நகலையும் நான் பெற்றுக் கொண்டேன்.

பங்குபெறுபவரின் மற்றும் கையொப்பம் அல்லது கைரேகை

பெயர்_____ கையொப்பம்_____ தேதி_____

நடுநிலை சாட்சியாளரின் பெயர் மற்றும் கையொப்பம்

பெயர்_____ கையொப்பம்_____ தேதி_____

முகவரி _____ தொலைபேசி எண் _____

ஆய்வாளரின் பெயர் மற்றும் கையொப்பம்

பெயர்_____ கையொப்பம்_____ தேதி_____

ஆராய்ச்சி தகவல் தாள்

தலைப்பு : குழந்தை பருவ கஷ்டங்கள், இருதுருவ மனநிலை கோளாறு நோயின் மருத்துவ பண்பில் எவ்வாறு பங்கு வகிக்கிறது பற்றிய – ஓர் ஆய்வு

ஆய்வாளரின் பெயர் : மரு. இரா. சுதந்திராதேவி

பங்கு கொள்பவரின் பெயர் :

பங்கு பெறும் இடம் : அரசு மனநல காப்பகம், சென்னை மருத்துவ கல்லூரி, சென்னை

ஆராய்ச்சியின் நோக்கம்

இருதுருவ நிலை நோய் என்பது மனநோய்களில் அதிகமான அளவு காணப்படும் நோயாகும். இந் நோய் உடையவர்கள் சில காலம் மிக வேகமாகவிம் பித்து உடையவர்களாகவும், சில காலம் மிக மன சோர்வு, மனஅழுத்தம் உடையவர்களாகவும் இருப்பார்கள் கிடையில் சில காலம் சீரான மனநிலையிலும் இருப்பார்கள். நாங்கள் குழந்தைப்பருவ கஷ்டங்கள் இருதுருவ மனநிலை கோளாறு நோயின் மருத்துவ பண்பில் எவ்வாறு பங்கு வகிக்கிறது என்பது பற்றிய ஓர் ஆய்வு செய்ய விரும்புகிறோம். இந்த ஆய்வு நடத்த நெறிமுறை குழுவினரிடம் அனுமதி பெற்றுள்ளேன்.

ஆராய்ச்சி படிக்கும் விதம் மற்றும் செயல்முறை

18 முதல் 50 வயது வரை உள்ள 100 இருதுருவ மனநிலைகோளாற நோயுடையவர்கள் மற்றும் 100 மனநோய் இல்லாதவர்களை இந்த ஆராய்ச்சியில் இணைக்கப்பட்டு கீழ்க்காளும் அளவீடுகளை வினா தொகுப்புகள் மூலம் கேட்டு அளவிடப்படும்.

1. **குழந்தை பருவ கஷ்டங்கள் அளடும் அளவீடு**
2. **மது தவறான பயன்பாடு கண்டுபிடிக்கும் சோதனை**
3. **பித்து அளவீடு**
4. **ஹாமில்டன் மன அழுத்த அளவீடு**
5. **உலக வாழ்க்கை செயல்பாட்டை அளவீடும் அளவீடு**

இவை எல்லாவற்றிற்கும் 45 நிமிடம் முதல் 1 மணி நேரம் ஆகலாம். இவை அனைத்தும் ஒரு தடவையிலேயே எடுக்கப்படும்.

தகவல் – ரகசிய தன்மை

இந்த ஆராய்ச்சியில் உங்களை பற்றிய தகவல்கள் (பெயர். அடையாளங்கள், மருத்துவ சோதனை, மருத்துவ விவரங்களை) வெளியிடமாட்டோம். இந்த படிவத்தில் கையெழுத்து போடுவதின் மூலம் ஆராய்ச்சியாளர்கள் அவரது குழுவினர் மற்றும் நெறிமுறை குழுவினர்கள் உங்களை பற்றிய தகவல்களை அறிந்து கொள்ளலாம் என்று ஒப்புதல் அளிக்கிறீர்கள். மேலும் இந்த ஆய்வு அறிவியல் பத்திரிக்கைகளில் வெளியிடும் போது உங்கள் குழந்தையின் விவரங்களை வெளிப்படுத்தமாட்டோம்.

ஆராய்ச்சியில் பங்கு பெறாமல் இருத்தல் உங்களை பாதிக்குமா?

நீங்கள் உங்களை இந்த ஆராய்ச்சியில் உட்படுத்தாமல் இருந்தாலும் மருத்துவ சிகிச்சையிலோ அல்லது ஆய்வாளரின் நல்லுறவிலோ எவ்வித பாதிப்பும் ஏற்படாது.

எப்பொழுது ஆராய்ச்சியிலிருந்து விடுபடுவது

இந்த ஆராய்ச்சியில் பங்கேற்பது தங்களுடைய விருப்பதிதின் பேரில் தான் இருக்கிறது. மேலும் நீங்கள் எந்த நேரமும் இந்த ஆராய்ச்சியிலிருந்து எந்த காரணத்திற்காகவும் விலகிக் கொள்ளலாம். ஆனால் விலகுவதற்கு முன் ஆராய்ச்சியாளருக்கு அறிவிப்பது நல்லது.

ஆராய்ச்சியாளர் கையொப்பம் **பங்கேற்பாளர் கையொப்பம்**

நாள்: **இடது கைரேகை**

இடம்

Young Mania Rating Scale (YMRS)

Guide for Scoring Items – The purpose of each item is to rate the severity of that abnormality in the patient. When several keys are given for a particular grade of severity, the presence of only one is required to qualify for that rating.

The keys provided are guides. One can ignore the keys if that is necessary to indicate severity, although this should be the exception rather than the rule.

Scoring between the points given (whole or half points) is possible and encouraged after experience with the scale is acquired. This is particularly useful when severity of a particular item in a patient does not follow the progression indicated by the keys.

1. *Elevated Mood*
   - 0 Absent
   - 1 Mildly or possibly increased on questioning
   - 2 Definite subjective elevation; optimistic, self-confident; cheerful; appropriate to content
   - 3 Elevated, inappropriate to content; humorous
   - 4 Euphoric; inappropriate to content; singing

2. *Increased Motor Activity – Energy*
   - 0 Absent
   - 1 Subjectively increased
   - 2 Animated; gestures increased
   - 3 Excessive energy; hyperactive at times; restless (can be calmed)
   - 4 Motor excitement; continuous hyperactivity (cannot be calmed)

3. *Sexual Interest*
   - 0 Normal; not increased
   - 1 Mildly or possibly increased
   - 2 Definitive subjective increase on questioning
   - 3 Spontaneous sexual content; elaborates on sexual matters; hypersexual by self-report
   - 4 Overt sexual acts (towards patients, staff, or interviewer)

4. *Sleep*
   - 0 Reports no decrease in sleep
   - 1 Sleeping less than normal amount by up to one hour
   - 2 Sleeping less than normal by more than one hour
   - 3 Reports decreased need for sleep
   - 4 Denies need for sleep

5. *Irritability*
   - 0 Absent
   - 2 Subjectively increased
   - 4 Irritable at times during interview; recent episodes of anger or annoyance on ward
   - 6 Frequently irritable during interview; short, curt throughout
   - 8 Hostile, uncooperative; interview impossible

6. *Speech (Rate and Amount)*
   - 0 No increase
   - 2 Feels talkative
   - 4 Increased rate or amount at times, verbose at times
   - 6 Push; consistently increased rate and amount; difficult to interrupt
   - 8 Pressured; uninterruptible, continuous speech

7. *Language – Thought Disorder*
   - 0 Absent
   - 1 Circumstantial; mild distractibility; quick thoughts
   - 2 Distractible; loses goal of thought; changes topics frequently; racing thoughts
   - 3 Flight of ideas; tangentiality; difficult to follow; rhyming; echolalia
   - 4 Incoherent; communication impossible

8. *Content*
   - 0 Normal
   - 2 Questionable plans, new interests
   - 4 Special project(s); hyperreligious
   - 6 Grandiose or paranoid ideas; ideas of reference
   - 8 Delusions; hallucinations

9. *Disruptive – Aggressive Behavior*
   - 0 Absent; cooperative
   - 2 Sarcastic; loud at times; guarded
   - 4 Demanding; threats on ward
   - 6 Threatens interviewer; shouting; interview difficult
   - 8 Assaultive; destructive; interview impossible

10. *Appearance*
    - 0 Appropriate dress and grooming
    - 1 Minimally unkempt
    - 2 Poorly groomed; moderately disheveled; overdressed
    - 3 Disheveled; partly clothed; garish makeup
    - 4 Completely unkempt; decorated; bizarre garb

11. *Insight*
    - 0 Present; admits illness; agrees with need for treatment
    - 1 Possibly ill
    - 2 Admits behavior change, but denies illness
    - 3 Admits possible change in behavior, but denies illness
    - 4 Denies any behavior changes

Name: _____

Rater: _____

Date: _____

Score: _____

THE HAMILTON RATING SCALE FOR DEPRESSION

(to be administered by a health care professional)

Patient's Name

Date of Assessment

To rate the severity of depression in patients who are already diagnosed as depressed, administer this questionnaire. The higher the score, the more severe the depression.

For each item, write the correct number on the line next to the item. (Only one response per item)

1. DEPRESSED MOOD (Sadness, hopeless, helpless, worthless)

_____
- **0=** Absent
- **1=** These feeling states indicated only on questioning
- **2=** These feeling states spontaneously reported verbally
- **3=** Communicates feeling states non-verbally—i.e., through facial expression, posture, voice, and tendency to weep
- **4=** Patient reports VIRTUALLY ONLY these feeling states in his spontaneous verbal and non-verbal communication

2. FEELINGS OF GUILT

_____
- **0=** Absent
- **1=** Self reproach, feels he has let people down
- **2=** Ideas of guilt or rumination over past errors or sinful deeds
- **3=** Present illness is a punishment. Delusions of guilt
- **4=** Hears accusatory or denunciatory voices and/or experiences threatening visual hallucinations

3. SUICIDE

_____
- **0=** Absent
- **1=** Feels life is not worth living
- **2=** Wishes he were dead or any thoughts of possible death to self
- **3=** Suicidal ideas or gesture
- **4=** Attempts at suicide (any serious attempt rates 4)

4. INSOMNIA EARLY

_____
- **0=** No difficulty falling asleep
- **1=** Complains of occasional difficulty falling asleep—i.e., more than 1/2 hour
- **2=** Complains of nightly difficulty falling asleep

5. INSOMNIA MIDDLE

_____
- **0=** No difficulty
- **1=** Patient complains of being restless and disturbed during the night
- **2=** Waking during the night—any getting out of bed rates 2 (except for purposes of voiding)

Adapted from Hedlung and Vieweg, The Hamilton rating scale for depression, *Journal of Operational Psychiatry*, 1979;10(2):149-165.

6. INSOMNIA LATE

_____ **0=** No difficulty
1= Waking in early hours of the morning but goes back to sleep
2= Unable to fall asleep again if he gets out of bed

7. WORK AND ACTIVITIES

_____ **0=** No difficulty
1= Thoughts and feelings of incapacity, fatigue or weakness related to activities; work or hobbies
2= Loss of interest in activity; hobbies or work—either directly reported by patient, or indirect in listlessness, indecision and vacillation (feels he has to push self to work or activities)
3= Decrease in actual time spent in activities or decrease in productivity
4= Stopped working because of present illness

8. RETARDATION: PSYCHOMOTOR (Slowness of thought and speech; impaired ability to concentrate; decreased motor activity)

_____ **0=** Normal speech and thought
1= Slight retardation at interview
2= Obvious retardation at interview
3= Interview difficult
4= Complete stupor

9. AGITATION

_____ **0=** None
1= Fidgetiness
2= Playing with hands, hair, etc.
3= Moving about, can't sit still
4= Hand wringing, nail biting, hair-pulling, biting of lips

10. ANXIETY (PSYCHOLOGICAL)

_____ **0=** No difficulty
1= Subjective tension and irritability
2= Worrying about minor matters
3= Apprehensive attitude apparent in face or speech
4= Fears expressed without questioning

11. ANXIETY SOMATIC: Physiological concomitants of anxiety, (i.e., effects of autonomic overactivity, "butterflies," indigestion, stomach cramps, belching, diarrhea, palpitations, hyperventilation, paresthesia, sweating, flushing, tremor, headache, urinary frequency). Avoid asking about possible medication side effects (i.e., dry mouth, constipation)

_____ **0=** Absent
1= Mild
2= Moderate
3= Severe
4= Incapacitating

12. SOMATIC SYMPTOMS (GASTROINTESTINAL)

_____ **0=** None
1= Loss of appetite but eating without encouragement from others. Food intake about normal
2= Difficulty eating without urging from others. Marked reduction of appetite and food intake

13. SOMATIC SYMPTOMS GENERAL

_____ **0=** None
1= Heaviness in limbs, back or head. Backaches, headache, muscle aches. Loss of energy and fatigability
2= Any clear-cut symptom rates 2

14. GENITAL SYMPTOMS (Symptoms such as: loss of libido; impaired sexual performance; menstrual disturbances)

_____ **0=** Absent
1= Mild
2= Severe

15. HYPOCHONDRIASIS

_____ **0=** Not present
1= Self-absorption (bodily)
2= Preoccupation with health
3= Frequent complaints, requests for help, etc.
4= Hypochondriacal delusions

16. LOSS OF WEIGHT

_____ **A.** When rating by history:
0= No weight loss
1= Probably weight loss associated with present illness
2= Definite (according to patient) weight loss
3= Not assessed

17. INSIGHT

_____ **0=** Acknowledges being depressed and ill
1= Acknowledges illness but attributes cause to bad food, climate, overwork, virus, need for rest, etc.
2= Denies being ill at all

18. DIURNAL VARIATION

_____ **A.** Note whether symptoms are worse in morning or evening. If NO diurnal variation, mark none
0= No variation
1= Worse in A.M.
2= Worse in P.M.

_____ **B.** When present, mark the severity of the variation. Mark "None" if NO variation
0= None
1= Mild
2= Severe

19. DEPERSONALIZATION AND DEREALIZATION (Such as: Feelings of unreality; Nihilistic ideas)

_____
0= Absent
1= Mild
2= Moderate
3= Severe
4= Incapacitating

20. PARANOID SYMPTOMS

_____
0= None
1= Suspicious
2= Ideas of reference
3= Delusions of reference and persecution

21. OBSESSIONAL AND COMPULSIVE SYMPTOMS

_____
0= Absent
1= Mild
2= Severe

Total Score _____

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CHILDHOOD TRAUMA QUESTIONNAIRE

Please respond to the following questions using the scale below.
1= Never True
2= Rarely True
3= Sometimes True
4=Often true
5= Very often true

When I was growing up…

_____1. I didn't have enough to eat.
_____2. I knew that there was someone to take care of me and protect me.
_____3. People in my family called me things like "stupid," "lazy," or "ugly."
_____4. My parents were too drunk or high to take care of the family.
_____5. There was someone in my family who helped me feel that I was important or special.
_____6. I had to wear dirty clothes.
_____7. I felt loved.
_____8. I thought that my parents wished I had never been born.
_____9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.
_____10.There was nothing I wanted to change about my family.
_____11.People in my family hit me so hard that it left me with bruises or marks.
_____12.I was punished with a belt, a board, a cord, or some other hard object.
_____13.People in my family looked out for each other.
_____14.People in my family said hurtful or insulting things to me.
_____15.I believe that I was physically abused.
_____16.I had the perfect childhood.
_____17.I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.
_____18.I felt that someone in my family hated me.
_____19.People in my family felt close to each other. _____20.Someone tried to touch me in a sexual way, or tried to make me touch them. If yes then who? (examples: a stranger, friend, niece or nephew, cousin, sibling)

_____

How long did this occur? _____

_____21.Someone threatened to hurt me or tell lies about me unless I did something
sexual with them. If yes then who? (examples: a stranger, friend,
niece or nephew, cousin, sibling)
_____
___
How long did this occur? _____
_____22.I had the best family in the world.
_____23.Someone tried to make me do sexual things or watch sexual things. If yes, than
who? (examples: a stranger, friend, niece or nephew, cousin, sibling)
_____
How long did this occur? _____
_____24. Someone molested me. If yes, than who? (examples: a stranger, friend, niece
or nephew, cousin, sibling)_____
How long did this occur? _____
_____25. I believe that I was emotionally abused.
_____26. There was someone to take me to the doctor if I needed it.
_____27. I believe that I was sexually abused. If yes, than who? (examples: a stranger,
friend, niece or nephew, cousin,
sibling)_____
How long did this occur? _____
_____28.My family was a source of strength and support.
Emotional abuse Items: 3, 8, 14, 18, 25
Physical abuse Items: 9, 11, 12, 15, 17
Sexual abuse Items: 20, 21, 23, 24, 27
Emotional Neglect Items: 5(R), 7(R), 13(R), 19(R) 28(R)
Physical neglect Items: 1, 2(R), 4, 6, 26(R)
10 16 22 denial items
*Bernstein et al. (2003).78

ANNEXURE 2

Australian Government
Department of Veterans' Affairs

Alcohol Screen (AUDIT)

THE RIGHT MIX

Light Beer 425ml 2.9% Alcohol	Full Strength Beer 285ml 4.9% Alcohol	Wine 100ml 12% Alcohol	Fortified Wine 60ml 20% Alcohol	Spirits 30ml 40% Alcohol	Full Strength Can or Stubbie 375ml 4.9% Alcohol
					

The guide above contains examples of ***one standard drink***. A full strength can or stubbie contains ***one and a half standard drinks***.

Introduction

Because alcohol use can affect health and interfere with certain medications and treatments, it is important that we ask you some questions about your use of alcohol. Your answers will remain confidential, so please be as accurate as possible. Try to answer the questions in terms of **'standard drinks'**. Please ask for clarification if required.

AUDIT Questions Please tick the response that best fits your drinking.

						Score	Sub totals
		Never	*Monthly or less*	*2 - 4 times a month*	*2 - 3 times a week*	*4 or more times a week*		
1.	How often do you have a drink containing alcohol?	☐ Go to Qs 9 & 10	☐	☐	☐	☐	☐	
		1 or 2	*3 or 4*	*5 or 6*	*7 to 9*	*10 or more*		
2.	How many standard drinks do you have on a typical day when you are drinking?	☐	☐	☐	☐	☐	☐	
		Never	*Less than monthly*	*Monthly*	*Weekly*	*Daily or almost daily*		
3.	How often do you have six or more standard drinks on one occasion ?	☐	☐	☐	☐	☐	☐	☐
4.	How often during the last year have you found that you were not able to stop drinking once you had started?	☐	☐	☐	☐	☐	☐	
5.	How often during the last year have you failed to do what was normally expected of you because of drinking?	☐	☐	☐	☐	☐	☐	
6.	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	☐	☐	☐	☐	☐	☐	☐
7.	How often during the last year have you had a feeling of guilt or remorse after drinking?	☐	☐	☐	☐	☐	☐	
8.	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	☐	☐	☐	☐	☐	☐	
		No		*Yes, but not in the last year*		*Yes, during the last year*		
9.	Have you or someone else been injured because of your drinking?	☐		☐		☐	☐	
10.	Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?	☐		☐		☐	☐	☐
							TOTAL	

Supplementary Questions	*No*	*Probably Not*	*Unsure*	*Possibly*	*Definitely*
Do you think you presently have a problem with drinking?	☐	☐	☐	☐	☐
	Very easy	*Fairly easy*	*Neither difficult nor easy*	*Fairly difficult*	*Very difficult*
In the next 3 months, how difficult would you find it to cut down or stop drinking?	☐	☐	☐	☐	☐

ANNEXURE 2 (contd..)

How to score and interpret the AUDIT

The World Health Organization's Alcohol Use Disorders Identification Test (AUDIT) is a very reliable and simple screening tool which is sensitive to early detection of risky and high risk (or hazardous and harmful) drinking. It has three questions on alcohol consumption (**1 to 3**), three questions on drinking behaviour and dependence (**4 to 6**) and four questions on the consequences or problems related to drinking (**7 to 10**).

The **Supplementary Questions** do not belong to the AUDIT and are **not** scored. They provide useful clinical information associated with the client's perception of whether they have an alcohol problem and their confidence that change is possible in the short-term. They act as an indication of the degree of intervention required and provide a link to counselling or brief intervention following feedback of the AUDIT score to the client.

Scoring the AUDIT

- The columns in the AUDIT are scored from left to right.
- **Questions 1 to 8** are scored on a five-point scale from **0, 1, 2, 3,** and **4**.
- **Questions 9 & 10** are scored on a three -point scale from **0, 2** and **4**.
- Record the score for each question in the **"score"** column on the right, including a zero for questions **2 to 8** if 'skipped'.
- Record a total score in the **"TOTAL"** box at the bottom of the column. The maximum score is 40.

Consumption score

Add up **questions 1 to 3** and place this sub-score in the adjacent single box in the far right column (maximum score possible = 12). A score of 6 or 7 may indicate a risk of alcohol-related harm, even if this is also the total score for the AUDIT (e.g. consumption could be over the recommended weekly intake of 28 for men and 14 for females in the absence of scoring on any other questions). Drinking may also take place in dangerous situations (e.g. driving, fishing/boating). Scores of 6 to 7 may also indicate potential harm for those groups more susceptible to the effects of alcohol, such as young people, women, the elderly, people with mental health problems and people on medication. Further inquiry may reveal the necessity for harm reduction advice.

Dependence score

Add up **questions 4 to 6** and place this sub-score in the adjacent single box in the far right column (maximum score possible = 12). In addition to the total AUDIT score, a secondary 'dependence' score of 4 or more as a subtotal of questions 4 to 6, suggests the possibility of alcohol dependence (and therefore the need for more intensive intervention if further assessment confirms dependence).

Alcohol-related problems score

Any scoring on **questions 7 to 10** warrants further investigation to determine whether the problem is of current concern and requires intervention.

AUDIT Total score	*Dependence score*	*Risk level*	*Possible Interventions*
0 - 7	below 4	**Low-risk**	• Use 'Right Mix' materials to reinforce low-risk drinking, particularly for those who previously had alcohol problems or whose circumstances may change. • Harm reduction advice may be appropriate for those in susceptible groups (see 'Consumption Score' above).
8 - 15	below 4	**Risky** or **hazardous level.** Moderate risk of harm. May include some clients currently experiencing harm (especially those who have minimised their reported intake and problems).	• Brief Intervention - feedback of AUDIT and harm reduction advice may be sufficient Ideally also: - setting goals and limits - a motivational interview - self-monitoring of drinking - use of "The Right Mix" self-help guide
	4 or more	Assess for dependency	• Counselling may be required.
16 - 19	below 4	**High-risk** or **harmful level.** Drinking that will eventually result in harm, if not already doing so. May be dependent.	• Brief Intervention (all components) is a minimum requirement. • Assessment for more intensive intervention. • Counselling using CBT principles and motivational interviewing in individual sessions and/or in groups. • Follow-up and referral where necessary.
	4 or more	Assess for dependence	
20 or more	below 4	**High-risk** Definite harm, also likely to be alcohol dependent. Assess for dependence.	• Further assessement preferably including family and significant others. • More intensive counselling and/or group program. • Consider referral to medical or specialist services for withdrawal management.
	4 or more	**Almost certainly dependent.** Assess for dependency.	• Pharmacotherapy to manage cravings. • Relapse prevention, longer-term follow-up and support.

Global Assessment of Functioning (GAF) Scale

(From DSM-IV-TR, p. 34.)

Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health-illness. Do not include impairment in functioning due to physical (or environmental) limitations.

Code	(Note: Use intermediate codes when appropriate, e.g., 45, 68, 72.)
100 | 91	**Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms.**
90 | 81	**Absent or minimal symptoms** (e.g., mild anxiety before an exam**), good functioning in all areas, interested and involved in a wide range of activities. socially effective, generally satisfied with life, no more than everyday problems or concerns** (e.g. an occasional argument with family members).
80 | 71	**If symptoms are present, they are transient and expectable reactions to psychosocial stressors** (e.g., difficulty concentrating after family argument); **no more than slight impairment in social, occupational or school functioning** (e.g., temporarily failing behind in schoolwork).
70 | 61	**Some mild symptoms** (e.g. depressed mood and mild insomnia) **OR some difficulty in social, occupational, or school functioning** (e.g., occasional truancy, or theft within the household)**, but generally functioning pretty well, has some meaningful interpersonal relationships.**
60 | 51	**Moderate symptoms** (e.g., flat affect and circumstantial speech, occasional panic attacks) **OR moderate difficulty in social, occupational, or school functioning** (e.g.. few friends, conflicts with peers or co-workers).
50 | 41	**Serious symptoms** (e.g.. suicidal ideation, severe obsessional rituals, frequent shoplifting) **OR any serious impairment in social, occupational, or school functioning** (e.g., no friends, unable to keep a job).
40 | 31	**Some impairment in reality testing or communication** (e.g., speech is at times illogical, obscure, or irrelevant) **OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood** (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).
30 | 21	**Behavior is considerably influenced by delusions or hallucinations** **OR serious impairment in communication or judgment** (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) **OR inability to function in almost all areas** (e.g., stays in bed all day; no job, home, or friends).
20 | 11	**Some danger of hurting self or others** (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) **OR occasionally fails to maintain minimal personal hygiene** (e.g., smears feces) **OR gross impairment in communication** (e.g., largely incoherent or mute).
10 | 1	**Persistent danger of severely hurting self or others** (e.g., recurrent violence) **OR persistent inability to maintain minimal personal hygiene** **OR serious suicidal act with clear expectation of death.**
0	Inadequate information.

MINI PLUS

M.I.N.I. Plus 5.0.0

Patient's Initials: ☐☐☐ Patient's ID Number (PID): ☐☐☐☐☐☐

Data Entrant (initials): ☐☐☐ Date (Day/Month/Year) ☐☐ / ☐☐ / ☐☐☐☐

Rater's Initials: ☐☐☐

MODULES	TIME FRAME	DSM-IV	ICD-10	Page	Meets Criteria
A. Major Depressive Episode	Current (2 weeks) Recurrent	296.20-296.26 single 296.30-296.36 recurrent	F32.x F33.x	3 4	☐
Mood Disorder due to a Medical Condition	Current Past	293.83 293.83	F06.xx none	4	☐
Substance Induced Mood Disorder	Current Past	29x.xx 29x.xx	none none		☐
MDE with Melancholic	Current (2 weeks)	296.20-296.26 single	F32.x	5	☐
B. Dysthymia	Current (past 2 years) Past	300.4 300.4	F34.1 F34.1	6	☐
C. Suicidality	Current (past month) Risk: ____ Low ____Medium ____High	none	none	7	☐
D. Manic Episode	Current Past	296.00-296.06 296.00-296.06	F30.x-F31.9 F30.x-F31.9	8	☐
Hypomanic Episode	Current Past	296.80-296.89 296.80-296.89	F31.8-F31.9/F34.0 F31.8-F31.9/F34.0	8	☐
Bipolar II Disorder	Current Past	296.89 296.89	F31.8 F31.8		☐
Manic Episode due to a Medical Condition	Current Past	293.83 293.83	F06.30 F06.30		☐
Hypomanic Episode due to a Medical Condition	Current Past	293.83 293.83	none none		☐
Substance Induced Manic Episode	Current Past	291.8-292-84 291.8-292-84	none none		☐
Substance Induced Hypomanic Episode	Current Past	291.8-292.84 291.8-292.84	none none		☐
E. Panic Disorder	Current (past month)	291.8-292.84	none	11	☐
Anxiety Disorder with Panic due to a General Med. Condition	Current	293.89	F06.4	12	☐
Substance induced Anxiety Disorder with Panic Attacks	Current	291.8-292.89	none	12	☐
F. Agoraphobia	Current	300.22	F40.00	13	☐
G. Social Phobia (Soc.AnxDis.)	Current(past month)	300.23	F40.1	14	
H. Specific Phobia	Current	300.3	F42.8	15	☐
OCD due to general medical condition	Current	293.89	F06.4	16	☐
Substance induced OCD	Current	291.8-292.89	none	16	
I. Obsessive-Compulsive Disorder	Current (past month)	300.3	F42.8		☐
J. Posttraumatic Stress Disorder	Current (past month)	309.81	F43.1	17	☐
K. Alcoholic Dependence	Past 12 months	303.9	F10.2x	18	☐
Alcoholic Dependence	Lifetime	303.9	F10.2x	19	☐
Alcoholic Abuse	Past 12 months	305.9	F10.1	18	☐
Alcoholic Abuse	Lifetime	305.00	F10.1	18	☐
L. Substance Dependence (non-alcohol)	Past 12 months	304.00-.9/305.20-.90	F11.0-F19.1	20	☐
Substance Dependence(non-alcohol)	Lifetime	304.00-.9/305.20-.90	F11.0-F19.1	20	☐
M. Psychotic Disorders	Lifetime Current	295.10-295.90//297.1/ 297.3/297.81/293.82/ 293.89/298.8/298.9	F20.xx.F29	24 24	☐
Mood Disorder with Psychotic Features	Current	296.24	F32.3/F33.3	29	☐

MODULES	TIME FRAME	DSM-IV	ICD-10	Page	Meet Criteria
Schizophrenia	Current Lifetime	295.10-295.60 295.10-295.60	F20.xx F20.xx		☐
Schizoaffective Disorder	Current Lifetime	295.70 295.70	F25..x F25.x		☐
Schizophreniform Disorder	Current Lifetime	295.40 295.40	F20.8 F20.8		☐
Brief Psychotic Disorder	Current Lifetime	298.8 298.8	F23.80-F23.81 F23.80-F23.81		☐
Delusional Disorder	Current Lifetime	297.1 297.1	F22.0 F22.0		☐
Psychotic Disorder due to a General Medical Condition	Current Lifetime	293.xx 293.xx	F06.0-F06.2 F06.0-F06.2		☐
Substance Induced Psychotic	Current	291.5-292.12	none		☐
Disorder	Lifetime	291.5-292.12	none		☐
Psychotic Disorder NOS	Current Lifetime	298.9 298.9	F29 F29		☐
Mood Disorder with Psychotic	Lifetime		F31.X3/F31.X2/		☐
Features			F31.X5		☐
Mood Disorder NOS	Lifetime	296.90	F39		☐
Major Depressive Disorder with Psychotic Features	Current Past	296.24 296.24	F33.X3 F33.X3		☐
Bipolar I Disorder with Psychotic Features	Current Past	296.04-296.64 296.04-296.64	F31.X2/F31.X5 F31.X2/F31.X5		☐
N. Anorexia Nervosa	Current (past 3 months)	307.1	F50.0	30	☐
O. Bulimia Nervosa	Current (past 3 months)	307.51	F50.2	32	☐
Bulimia Nervosa Purging Type	Current	307.51	F50.2		☐
Bulimia Nervosa Non-Purging Type	Current	307.51	F50.2		☐
Anorexia Nervosa, Binge Eating/	Current	307.1	F50.0		☐
Purging Type					☐
Anorexia Nervosa, Restricting Type	Current	307.1	F50.0		☐
P. Generalized Anxiety Disorder	Current (past 6 months)	300.02	F41.1	34	☐
Generalized Anxiety Disorder due to a General Medical Condition	Current	293.89	F06.4		☐
Substance induced GAD	Current	291.8-292.89	none		☐
Q. Antisocial Personality Disorder	Lifetime	301.7	F60.2	36	☐
R. Somatization Disorder	Lifetime Current	330.81	F45.0	37	☐
S. Hypochondriasis	Current	300.7	F45.2	38	☐
T. Body Dysmorphic Disorder	Lifetime	300.7	F45.2	39	☐
U. Pain Disorder	Current	300.89/307.8	F45.4	39	☐
V. Conduct Disorder	Past 12 months	312.8	F91.8	40	☐
W. Attention Deficit/Hyperactivity Disorder (children/adolescents)	Past 6 months	314.00/314.01	F90.0/F90.9/ F98.8	41	☐
Attention Deficit Hyperactivity Disorder (adults)	Lifetime	314.00/314.01	F90.0/F98.8	42	
X. Adjustment Disorders	Current	309.xx		43	☐
Y. Premenstrual Dysphoric Disorder	Current			44	☐
Z. Mixed Anxiety-Depressive Disorder	Current			45	☐

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

For patients who appear psychotic before starting the interview, or who are suspected to have schizophrenia, please adopt the following order of administration of modules:

1) Part 1 of module M (psychotic disorders M1-M18).
2) Sections A-D (depression to (hypo)manic episode).
3) Part 2 of module M (psychotic disorders M19-M23).
4) Other modules in their usual sequence.

If module M has already been explored and psychotic symptoms have been identified (M1 to M10b), examine for each positive response to the following questions if the depressive symptoms are not better explained by the presence of a psychotic disorder and code accordingly.

A. MAJOR DEPRESSIVE EPISODE

A1 a Have you **ever** been consistently depressed or down, most of the day, nearly every day, for at least two weeks? O No O Yes

IF **A1a = YES**:

b Have you been consistently depressed or down, most of the day, nearly every day, for the past 2 weeks? O No O Yes

A2 a Have you **ever** been much less interested in most things or much less able to enjoy the things you used to enjoy most of the time over at least 2 weeks? O No O Yes

IF **A2a = YES**:

b In the past 2 weeks, have you been much less interested in most things or much less able to enjoy the things you used to enjoy most of the time. O No O Yes

=>

IS **A1a** OR **A2a** CODED YES? O No O Yes

IF CURRENTLY DEPRESSED (A1b OR A2b = YES): EXPLORE ONLY CURRENT EPISODE.
IF **NO:** EXPLORE THE MOST SYMPTOMATIC PAST EPISODE.

A3 **Over the two week period when you felt depressed or uninterested,**

	Current Episode	Past Episode
a Was your appetite decreased or increased nearly every day? If unclear, did your weight decrease or increase without trying intentionally (i.e., by +/-5% OF BODY WEIGHT OR +/-8 LBS. OR +/-3.5 KGS. PERSON IN A MONTH)? IF **YES** TO EITHER (increase/decrease), CODE **YES**	O No O Yes	O No O Yes
b Did you have trouble sleeping nearly every night (*difficulty falling asleep, waking up in the middle of the night, waking early in the morning*) or sleeping excessively?	O No O Yes	O No O Yes
c Did you talk or move more slowly than normal or were you fidgety, restless or having trouble sitting still almost every day?	O No O Yes	O No O Yes
d Did you feel tired or without energy almost every day?	O No O Yes	O No O Yes
e Did you feel worthless or guilty almost every day?	O No O Yes	O No O Yes

IF A3e = YES ASK FOR AN EXAMPLE.
THE EXAMPLE IS CONSISTENT WITH A DELUSIONAL O No O Yes

	Current Episode	Past Episode
f Did you have difficulty concentrating or making decisions almost every day?	O No O Yes	O No O Yes
g Did you repeatedly consider hurting yourself, feel suicidal, or wish that you were dead?	O No O Yes	O No O Yes
A4 TO MEET FOR A CURRENT OR PAST EPISODE: AT LEAST ONE SYMPTOM OF **A1** OR **A2** PLUS **4** OF A3 ARE CODED **YES;** OR BOTH **A1 AND A2 PLUS 3** OR MORE ARE CODED **YES** FOR **A3*.**	O No O Yes	=> O No O Yes

IF **A4** IS CODED **NO** FOR CURRENT EPISODE ONLY THEN EXPLORE **A3a - A3g** FOR MOST SYMPTOMATIC PAST EPISODE.

Best estimate of duration (in weeks) of the current episode to date from onset of first signs of change in usual condition to time of evaluation. ☐☐☐

A5 Did the symptoms of depression cause you significant distress or impair your ability to function at work, socially, or in some other important way? => O No O Yes

A6 Are the symptoms due entirely to the loss of a loved one (bereavement) and are they similar in severity, level of impairement, and duration to what most others would suffer under similar circumstances? If so, this is uncomplicated bereavement.

HAS UNCOMPLICATED BEREAVEMENT BEEN RULED OUT? => O No O Yes

A7 a Were you taking any drugs or medicines just before these symptoms began?

O No O Yes

b Did you have any medical illness just before these symtpoms began?

O No O Yes

IN THE CLINICIAN'S JUDGMENT: ARE EITHER, **A7a** or **A7b**, LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S DEPRESSION? IF NECESSARY ASK

A7 (SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT? O No O Yes O Uncertain

A8 CODE **YES** IF **A7(SUMMARY)=YES** OR **UNCERTAIN.**

SPECIFY IF THE EPISODE IS CURRENT AND/ OR PAST OR BOTH (RECURRENT).

O No O Yes

Major Depressive Episode

Current O
Past O

A9 CODE **YES** IF **A7b=YES** AND **A7(SUMMARY) = NO.**

SPECIFY IF THE EPISODE IS CURRENT AND/ OR PAST OR BOTH (RECURRENT).

O No O Yes

Mood Disorder Due to a General Medical Condition

Current O
Past O

A10 CODE **YES** IF **A7a=YES** AND **A7(SUMMARY)= NO.**

SPECIFY IF THE EPISODE IS CURRENT AND/ OR PAST OR BOTH (RECURRENT).

O No O Yes

Substance-Induced Mood Disorder

Current O
Past O

CHRONOLOGY

A11 How old were you when you first began having symptoms of depression? : ☐☐ years

A12 During your lifetime, how many distinct times did you have these symptoms of depression (daily for at least 2 weeks)? ☐☐☐

MAJOR DEPRESSIVE EPISODE WITH MELANCHOLIC FEATURES

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

IF THE PATIENT CODES POSITIVE FOR A CURRENT MAJOR DEPRESSIVE EPISODE (A8=YES, CURRENT) EXPLORE THE FOLLOWING:

A13

a IS **A2b** CODED **YES**? ○ No ○ Yes

b During the most severe period of the current depressive episode, did you lose your ability to respond to things that previously gave you pleasure, or cheered you up? ○ No ○ Yes
IF NO, DOUBLE CHECK ANSWER BY ASKING:
When something good happens, does it fail to make you feel better, even temporarily?

=>

IS EITHER **A13a** OR **A13b** CODED YES? ○ No ○ Yes

A14 **Over the past two week period, when you felt depressed and uninterested:**

a Did you feel depressed in a way that is different from the kind of feeling you experienced when someone close to you dies? ○ No ○ Yes

b Did you regularly feel worse in the morning, almost every day? ○ No ○ Yes

c Did you wake up at least 2 hours before the usual time of awakening and have difficulty getting back to sleep, almost every day? ○ No ○ Yes

d IS A3c CODED YES (PSYCHOMOTOR RETARDATION OR AGIATION)? ○ No ○ Yes

e IS A3a CODED YES FOR ANOREXIA OR WEIGHT LOSS? ○ No ○ Yes

f Did you feel excessive guilt or guilt out of proportion to the reality of the situation? ○ No ○ Yes

ARE **3 OR MORE A14 ANSWERS CODED YES**?

○ No ○ Yes

Major Depressive Episode with Melancholic Features Current

IF **A8** OR **A9** OR **A10 = YES**, SKIP TO SUICIDALITY => **PLEASE NOTE: This section is for administrative purposes only**

SUBTYPES OF MAJOR DEPRESSIVE EPISODE (Mark all that apply)

Mild	O	296.21/296.31
Moderate	O	296.22/296.32
Severe without psychotic features	O	296.23
Severe with psychotic features	O	296.24
In partial remission	O	296.25
In full remission	O	296.26
Chronic	O	
With catatonic features	O	
With melancholic features	O	
With atypical features	O	
With postpartum onset	O	
With seasonal pattern	O	
With full interepisode recovery	O	
Without full interepisode recovery	O	

B. DYSTHYMIA

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

If symptoms <u>currently</u> meet criteria for major depressive episode, <u>do NOT</u> explore <u>current</u> dysthymia, but <u>do</u> explore <u>past</u> dysthymia.

Make sure that the past dysthymia explored is not one of the past major depressive episodes, and that it was separated from any prior major depressive episode by at least 2 months of full remission. [APPLY THIS RULE ONLY IF YOU ARE INTERESTED IN EXPLORING DOUBLE DEPRESSION.]

SPECIFY WHICH TIME FRAME IS EXPLORED BELOW: O Current O Past

B1	Have you felt sad, low or depressed most of the time for the last two years? (OR IF EXPLORING PAST DYSTHYMIA: "In the past, did you every feel sad, low or depressed for 2 years continuously?")	=> O No	O Yes
B2	Was this period interrupted by your feeling OK for two months or more?	=> O No	O Yes
B3	**During this period of feeling depressed most of the time:**		
	a Did your appetite change significantly?	O No	O Yes
	b Did you have trouble sleeping or sleep excessively?	O No	O Yes
	c Did you feel tired or without energy?	O No	O Yes
	d Did you lose your self-confidence?	O No	O Yes
	e Did you have trouble concentrating or making decisions?	O No	O Yes
	f Did you feel hopeless?	O No	O Yes
	ARE **2** OR MORE **B3** ANSWERS CODED **YES?**	=> O No	O Yes

B4 Did the symptoms of depression cause you significant distress or impair your ability to function at work, socially, or in some other important way? => O No O Yes

B5 Were you taking any "street" drugs or medicines just before these symptoms began?
Did you have any medical illness just before these symptoms began?
IN THE CLINICIAN'S JUDGMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S DEPRESSION?

HAS AN ORGANIC CAUSE BEEN RULED OUT? O No O Yes

IS **B5** CODED **YES?**

O No O Yes

DYSTHYMIA

O Current

O Past

CHRONOLOGY

B6 How old were you when you first began having symptoms of 2 years of continuous depression? ☐☐ years

C. SUICIDALITY

In the past month did you:

				Points
C1	Think you would be better off dead or wish you were dead?	O No	O Yes	1
C2	Want to harm yourself?	O No	O Yes	2
C3	Think about suicide?	O No	O Yes	6
C4	Have a suicide plan?	O No	O Yes	10
C5	Attempt suicide?	O No	O Yes	10
C6	**In your lifetime:** Did you ever make a suicide attempt?	O No	O Yes	4

IS AT LEAST **1** OF THE ABOVE CODED **YES?**

IF **YES,** ADD THE TOTAL NUMBER OF POINTS FOR THE ANSWERS (C1-C6) CHECKED 'YES' AND SPECIFY THE LEVEL OF SUICIDE RISK AS FOLLOWS:

O No O Yes

SUICIDE RISK CURRENT

1-5 points Low O

6-9 points Moderate O

>=10 points High O

D. (HYPO) MANIC EPISODE

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

FOR PATIENTS WHO APPEAR PSYCHOTIC BEFORE STARTING THE INTERVIEW OR WHO ARE SUSPECTED TO HAVE SCHIZOPHRENIA, PLEASE ADOPT THE FOLLOWING ORDER OF ADMINISTRATION OF MODULES:

1) PART I OF MODULE M (PSYCHOTIC DISORDERS M1-M18).
2) SECTIONS A-D (DEPRESSION TO (HYPO)MANIC EPISODE).
3) PART 2 OF MODULE M (PSYCHOTIC DISORDERS M19-M23).
4) OTHER MODULES IN THEIR USUAL SEQUENCE.

IF THE MODULE M HAS ALREADY BEEN EXPLORED AND PSYCHOTIC SYMPTOMS HAVE BEEN IDENTIFIED (M1 T M10b), EXAMINE FOR EACH POSITIVE RESPONSE TO THE FOLLOWING QUESTIONS IF THE (HYPO)MANIC SYMPTOMS ARE NOT BETTER EXPLAINED BY THE PRESENCE OF A PSYCHOTIC DISORDER AND CODE ACCORDINGLY.

D1 a Have you **ever** had a period of time when you were feeling 'up' or 'high' or so full of energy or full of yourself that you got into trouble, or that other people thought you were not your usual self? (Do not consider times when you were intoxicated on drugs or alcohol.) O No O Yes

IF **YES** TO **D1a:**

b Are you **currently** feeling 'up' or 'high' or full of energy? O No O Yes

IF THE PATIENT IS PUZZLED OR UNCLEAR ABOUT WHAT YOU MEAN BY 'UP OR 'HIGH', CLARIFY AS FOLLOWS: BY 'UP' OR 'HIGH' MEAN: HAVING ELATED MOOD; INCREASED ENERGY; NEEDING LESS SLEEP;HAVING RAPID THOUGHTS; BEING FULL OF IDEAS; HAVING AN INCREASE IN PRODUCTIVITY, MOTIVATION, CREATIVITY, OR IMPULSE BEHAVIOUR.

D2 a Have you **ever** been persistenly irritable, for several days, so that you had arguments or verbal or physical fights, or shouted at people outside your family? Have you or others noticed that you have been more irritable or over reacted, compared to other poeple, even in situations that you felt were justified? O No O Yes

IF **YES** TO **D2a:**

b Are you **currently** feeling persistently irritable? O No O Yes

IS **D1a** OR **D2a** CODED **YES?** => O No O Yes

D3 IF **D1b** OR **D2b** = **YES:** EXPLORE ONLY **CURRENT** EPISODE, OTHERWISE
IF **D1b** AND **D2b = NO**: EXPLORE THE MOST SYMPTOMATIC **PAST** EPISODE

During the times when you felt high, full of energy, or irritable did you:	Current Episode	Past Episode
a Feel that you could do things others couldn't do, or that you were an especially important person? If YES, ASK FOR EXAMPLES.	O No O Yes	O No O Yes
THE EXAMPLES ARE CONSISTENT WITH A DELUSIONAL IDEA. O No O Yes		
b Need less sleep (for example, feel rested after only a few hours sleep)?	O No O Yes	O No O Yes
c Talk too much without stopping, or so fast that people had difficulty understanding?	O No O Yes	O No O Yes
d Have racing thoughts?	O No O Yes	O No O Yes

	Current	Past Episode
e Become easily distracted so that any little interruption could distract you?	O No O Yes	O No O Yes
f Become so active or physically restless that others were worried about you?	O No O Yes	O No O Yes
g Want so much to engage in pleasurable activities that you ignored the risks or consequences (for example, spending sprees, reckless driving, or sexual indescretions)?	O No O Yes	O No O Yes
D3(SUMMARY): ARE **3** OR MORE **D3** ANSWERS CODED **YES** (OR 4 OR MORE IF **D1a** IS **NO**(IN RATING PAST EPISODE) OR D1b IS NO(IN RATING CURRENT EPISODE))? RULE: ELATION/EXPANSIVENESS REQUIRES ONLY THREE D3 SYMPTOMS WHILE IRRITABLE MOOD ALONE REQUIRES **4** OF THE **D3** SYMPTOMS.	O No O Yes	=> O No O Yes

VERIFY IF THE SYMPTOMS OCCURRED DURING THE SAME TIME PERIOD.

D4

a Were you taking any drugs or medicines just before these symptoms began?

O No O Yes

b Did you have any medical illness just before these symptoms began?

O No O Yes

IN THE CLINICIAN'S JUDGEMENT: ARE EITHER OF THESE LIKELY TO BE DIRECT CAUSES OF THE PATIENT'S (HYPO)MANIA? IF NECESSARY, ASK ADDITIONAL OPEN ENDED QUESTIONS.

	Current Episode	Past Episode
D4(SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT?	O No O Yes O Uncertain	O No O Yes O Uncertain
D5 Did these symptoms last at least a week and cause problems beyond your control at home, work school, or were you hospitalized for these problems?	O No O Yes	O No O Yes

IF **D5** IS CODED **NO** FOR CURRENT EPISODE, THEN EXPLORE **D3,** D4 AND **D5** FOR THE MOST SYMPTOMATIC PAST EPISODE.

D6 IF **D3(SUMMARY)=YES** AND **D4(SUMMARY)=YES** OR **UNCERTAIN** AND **D5=NO**, AND **NO DELUSIONAL IDEA** WAS DESCRIBED IN **D3a,** CODE **YES** FOR HYPOMANIAC EPISODE.

SPECIFY IF THE EPISODE INDENTIFIED IS CURRENT OR PAST.

O No O Yes

HYPOMANIC EPISODE

Current O
Past O

D7 IF **D3(SUMMARY)=YES** AND **D4(SUMMARY)=YES** OR UNCERTAIN AND EITHER **D5=YES** OR A DELUSIONAL IDEA WAS DESCRIBED IN **D3a,** CODE **YES** FOR MANIC EPISODE.

SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

O No O Yes

MANIC EPISODE

Current O
Past O

D8 IF **D3(SUMMARY**) AND **D4b** AND **D5=YES** AND **D4(SUMMARY)=NO**, CODE **YES.**
SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

O No O Yes

(Hypo) Manic Episode Due to a General Medical Condition

Current O
Past O

D9 IF **D3(SUMMARY)** AND **D4a** AND **D5=YES** AND **D4(SUMMARY)=NO**, CODE **YES.**
SPECIFY IF THE EPISODE IDENTIFIED IS CURRENT OR PAST.

IF **D8** OR **D9=YES**, GO TO NEXT MODULE.

O No O Yes
Substance Induced (Hypo)Manic Episode
Current O
Past O

SUBTYPES

Rapid Cycling
Have you had four or more episodes of mood disturbance in 12 months?

O No O Yes
Rapid Cycling

Mixed Episode
PATIENT MEETS CRITERIA FOR BOTH MANIC EPISODE AND MAJOR DEPRESSIVE EPISODE NEARLY EVERY DAY DURING AT LEAST A ONE WEEK PERIOD.

O No O Yes
Mixed Episode

Seasonal Pattern
THE ONSET AND REMISSIONS OR SWITCHES FROM DEPRESSION TO MANIA OR HYPOMANIA CONSISTENTLY OCCUR AT A PARTICULAR TIME OF YEAR.

O No O Yes
Seasonal Pattern

With Full Interepisode Recovery
Between the two most recent mood episodes did you fully recover?

O No O Yes
With Full Interepisode Recovery

MOST RECENT EPISODE WAS A:
O Manic Episode O Hypomanic Episode O Mixed Episode O Depressed Episode

SEVERITY
- O X1 Mild
- O X2 Moderate
- O X3 Severe without psychotic features
- O X4 Severe with psychotic features
- O X5 In partial remission
- O X6 In full remission

CHRONOLOGY

Age

D10 How old were you when you first began having symptoms of manic/hypomanic episodes? ☐☐

D11 Since the first onset how many distinct times did you have significant symptoms of mania/hypomania? ☐☐

E. PANIC DISORDER

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

E1	a Have you, on more than one occasion, had spells or attacks when you suddenly felt anxious, frightened, uncomfortable or uneasy, even in situations where most people would not feel that way?	=> O No	O Yes
	b Did the spells peak within 10 minutes?	=> O No	O Yes
E2	At any time in the past, did any of those spells or attacks come on unexpectedly or spontaneously, or occur in an unpredictable or unprovoked manner?	=> O No	O Yes
E3	Have you ever had one such attack followed by a month or more of persistent concern about having another attack, or worries about the consequences of the attacks?	O No	O Yes
E4	During the worst spell that you can remember:		
	a Did you have skipping, racing or pounding of your heart?	O No	O Yes
	b Did you have sweating or clammy hands?	O No	O Yes
	c Were you trembling or shaking?	O No	O Yes
	d Did you have shortness of breath or difficulty breathing?	O No	O Yes
	e Did you have a choking sensation or a lump in your throat?	O No	O Yes
	f Did you have chest pain, pressure or discomfort?	O No	O Yes
	g Did you have nausea, stomach problems or sudden diarrhea?	O No	O Yes
	h Did you feel dizzy, unsteady, lightheaded or faint?	O No	O Yes
	i Did things around you feel strange, unreal, detached or unfamiliar, or did you feel outside of or detached from part or all of your body?	O No	O Yes
	j Did you fear that you were losing control or going crazy?	O No	O Yes
	k Did you fear that you were dying?	O No	O Yes
	l Did you have tingling or numbness in parts of your body?	O No	O Yes
	m Did you have hot flushes or chills?	O No	O Yes
	E4 (SUMMARY): ARE 4 OR MORE E4 ANSWERS CODED YES?	O No	O Yes
E5			
	a Were you taking any drugs or medicines just before these symptoms began?	O No	O Yes
	b Did you have any medical illness just before these symptoms began?	O No	O Yes
	In the clinician's judgement: are either of these likely to be direct causes of the patient's panic disorder?	O No	O Yes
	E5 (SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT? IF **E5 (SUMMARY)** IS CODED **NO,** SKIP TO **E9.**	O No	O Yes

E6 DO **E3** AND **E4 (SUMMARY)** AND **E5 (SUMMARY)=YES**?

IF **E6=YES**, SKIP TO **E8.**

O No O Yes

PANIC DISORDER
LIFETIME

E7 IF **E6=NO**, ARE ANY **E4** ANSWERS CODED **YES?**

THEN SKIP TO **F1.**

O No O Yes

LIMITED SYMPTOM ATTACKS
LIFETIME

E8 In the past month, did you have such attacks repeatedly (2 or more), followed by persistent concern about having another attack?

IF THIS IS DENIED BY THE PATIENT - CHALLENGE BY REVIEWING THE SYMPTOMS ENDORSED IN E4

O No O Yes

PANIC DISORDER
CURRENT

E9 ARE **E3** AND **E4(SUMMARY)** AND **E5b** ALL CODED **YES** AND **E5 (SUMMARY)** CODED NO?

O No O Yes

Anxiety Disorder with Panic Attacks Due to a General Medical Condition
CURRENT

E10 ARE **E3** AND **E4(SUMMARY)** AND **E5a** ALL CODED **YES** AND **E5 (SUMMARY)** CODED **NO**?

O No O Yes

Substance Induced Anxiety Disorder with Panic Attacks
CURRENT

E11 How old were you when you first began having symptoms of panic attacks?

Age ☐☐

E12 During the past year, for how many months did you have significant symptoms of panic attacks or worries about having an attack?

☐☐ months

F. AGORAPHOBIA

F1 Have you ever **felt anxious** or uneasy in places or situations where you might have a panic attack or panic-like symptoms where help might not be available or escape might be difficult; like being in a crowd, standing in a line (queue), when you are alone away from home or alone at home, or when crossing a bridge, traveling in a bus, train or car? ○ No ○ Yes

IF **F1=NO**, ANSWER **NO** IN **F2** AND IN **F3**

F2 Have you ever feared these situations so much that you avoided them, or suffered through them, or needed a companion to face them?

○ No ○ Yes
AGORAPHOBIA LIFETIME

F3 Do you **NOW** fear or avoid these places or situations?

○ No ○ Yes
AGORAPHOBIA CURRENT

CHECK ONLY IF **YES**

IS AGORAPHOBIA CODED **YES?**	**F2** ○ lifetime	**F3** ○ current
IS PANIC DISORDER CODED **YES?**	**E6** ○ lifetime	**E8** ○ current

F4

a IS PANIC DISORDER, CURRENT (**E8**), CODED **YES**,

AND

IS AGORAPHOBIA, CURRENT (**F3**), CODED **NO?**

○ No ○ Yes
Panic Disorder, Current without AGORAPHOBIA

b IS PANIC DISORDER, CURRENT (**E8**), CODED **YES**,

AND

IS AGORAPHOBIA, CURRENT(**F3**), CODED **YES?**

○ No ○ Yes
Panic Disorder, Current with AGORAPHOBIA

c IS PANIC DISORDER, LIFETIME (**E6**), CODED **NO**,

AND

IS AGORAPHOBIA, CURRENT (**F3**), CODED **YES**?

○ No ○ Yes
AGORAPHOBIA, CURRENT without history of Panic Disorder

d IS AGORAPHOBIA, CURRENT (**F3**) CODED **YES**,

AND IS PANIC DISORDER CURRENT (**E8**) CODED **NO**,

AND IS PANIC DISORDER, LIFETIME (**E6**) CODED **YES**?

○ No ○ Yes
AGORAPHOBIA, CURRENT without current Panic Disorder but with a past history of Panic Disorder

e IS AGORAPHOBIA, CURRENT (**F3**) CODED **YES**,

AND LIMITED SYMPTOM ATTACKS (**E7**) CODED **NO**?

O No O Yes

AGORAPHOBIA CURRENT without history of Limited Symptom Attacks

CHRONOLOGY

F5 How old were you when you first began to fear or avoid these situations (agoraphobia)? ☐☐ years

F6 During the past year, for how many months did you have significant fear or avoidance of these situations (agoraphobia)? ☐☐

G. SOCIAL PHOBIA (Social Anxiety Disorder)

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

G1 In the past month, were you fearful or embarrassed about being watched, being the focus of attention, or fearful of being humiliated? This includes situations like speaking in public, eating in public or with others, writing while someone watches, or being in social situations. =>

O No O Yes

G2 Is this fear excessive or unreasonable? =>

O No O Yes

G3 Do you fear these situations so much that you avoid them or suffer through them? =>

O No O Yes

G4 Does this fear disrupt your normal work or social functioning or cause you significant distress?

O No O Yes

SOCIAL PHOBIA (Social Anxiety Disorder) CURRENT

SUBTYPES

Do you fear and avoid 4 or more social situations? O No O Yes

If YES --> generalized social phobia (social anxiety disorder)
If NO --> social phobia (social anxiety disorder), not generalized.

CHRONOLOGY

G5 How old were you when you first began to fear social situations? ☐☐ years

G6 During the past year, for how many months did you have significant fear of social situations? ☐☐

H. SPECIFIC PHOBIA

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

H1 In the past month, have you been excessively afraid of things like: flying, driving, heights, storms, animals, insects, or seeing blood or needles?

=> O No O Yes

H2 Is this fear excessive or unreasonable?

=> O No O Yes

H3 Do you fear these situations so much that you avoid them or suffer through them?

=> O No O Yes

H4 Does this fear disrupt your normal work or social functioning or cause you significant distress?

O No O Yes

SPECIFIC PHOBIA CURRENT

CHRONOLOGY

H5 How old were you when you first began to fear or avoid this situation?

Age ☐☐

H6 During the past year, how many times have you had significant fear of this situation?

☐☐

I. OBSESSIVE-COMPULSIVE DISORDER

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

I1 In the past month, have you been bothered by recurrent thoughts, impulses, or images that were unwanted, distasteful, inappropriate, intrusive, or distressing? (For example, the idea that you were dirty, contaminated or had germs, **or** fear of contaminating others, **or** fear of harming someone even though you didn't want to, **or** fearing you would act on some impulse, **or** fear or superstitions that you would be responsible for things going wrong, **or** obsessions with sexual thoughts, images or impulses, **or** hoarding, collecting, **or** religious obsessions).

DO NOT INCLUDE SIMPLY EXCESSIVE WORRIES ABOUT REAL LIFE PROBLEMS. DO NOT INCLUDE OBSESSIONS DIRECTLY RELATED TO EATING DISORDERS, SEXUAL DEVIATIONS, PATHOLOGICAL GAMBLING, OR ALCOHOL OR DRUG ABUSE BECAUSE THE PATIENT MAY DERIVE PLEASURE FROM THE ACTIVITY AND MAY WANT TO RESIST IT ONLY BECAUSE OF ITS NEGATIVE CONSEQUENCES.

O No O Yes

=> **to # I4**

I2 Did they keep coming back into your mind even when you tried to ignore or get rid of them?

O No O Yes

=> **to #I4**

I3 Do you think that these obsessions are the product of your own mind and that they are not imposed from the outside?

O No O Yes

obsessions

I4 In the past month, did you do something repeatedly without being able to resist doing it, like washing or cleaning excessively, counting or checking things over and over, or repeating, collecting, arranging things, or other superstitious rituals?

O No O Yes

compulsions

IS **I3** OR **I4** CODED **YES?**

=> O No O Yes

I5 Did you recognize that either these obsessional thoughts or compulsive behaviors were excessive or unreasonable?

=> O No O Yes

I6 Did these obsessions or compulsions significantly interfere with your normal routine, occupational functioning, usual social activities, or relationships, or did they take more than one hour a day? ○ No ○ Yes

I7 a Were you taking any drugs or medicines just before these symptoms began? ○ No ○ Yes

b Did you have any medical illness just before these symptoms began? ○ No ○ Yes

IN THE CLINICIAN'S JUDGEMENT: IS EITHER OF THESE LIKELY TO BE DIRECT CAUSE OF THE PATIENT'S OBSESSIVE COMPULSIVE DISORDER?

I7 (SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT? ○ No ○ Yes

ARE **I6** AND **I7 (SUMMARY**) CODED **YES?** ○ No ○ Yes

O.C.D. CURRENT

I8 ARE **I6** AND **I7b** CODED **YES,** AND **I7 (SUMMARY)** CODED **NO?** ○ No ○ Yes

O.C.D. CURRENT Due to a General Medical Condition

I9 ARE **I6** AND **I7a** CODED **YES,** AND **I7 (SUMMARY)** CODED **NO?** ○ No ○ Yes

CURRENT Substance Induced O.C.D.

CHRONOLOGY

I10 How old were you when you first began having symptoms of O.C.D.? ☐☐ Years

I11 During the past year, for how many months did you have significant symptoms of O.C.D.? ☐☐ Months

J. POSTTRAUMATIC STRESS DISORDER (optional)

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

J1	Have you ever experienced or witnessed or had to deal with an extremely traumatic event that included actual or threatened death or serious injury to you or someone else? EXAMPLES OF TRAUMATIC EVENTS INCLUDE: SERIOUS ACCIDENTS, SEXUAL OR PHYSICAL ASSAULT, A TERRORIST ATTACK, BEING HELD HOSTAGE, KIDNAPPING, FIRE, DISCOVERING A BODY, SUDDEN DEATH OF SOMEONE CLOSE TO YOU, WAR, OR NATURAL DISASTER.	=> O No	O Yes
J2	Did you respond with intense fear, helplessness or horror?	=> O No	O Yes
J3	During the past month, have you re-experienced the event in a distressing way (such as, dreams, intense recollections, flashbacks or physical reactions)?	=> O No	O Yes

J4 **In the past month**:

a	Have you avoided thinking about the event, or have you avoided things that remind you of the event?	O No	O Yes
b	Have you had trouble recalling some important part of what happened?	O No	O Yes
c	Have you felt detached or estranged from others?	O No	O Yes
d	Have you become much less interested in hobbies or social activities?	O No	O Yes
e	Have you noticed that your feelings are numbed?	O No	O Yes
f	Have you felt that your life will be shortened or that you will die sooner than other people?	O No	O Yes
	J4 (SUMMARY): ARE **3** OR MORE **J4** ANSWERS CODED **YES?**	=> O No	O Yes

J5 **In the past month:**

a	Have you had difficulty sleeping?	O No	O Yes
b	Were you especially irritable or did you have outbursts of anger?	O No	O Yes
c	Have you had difficulty concentrating?	O No	O Yes
d	Were you nervous or constantly on your guard?	O No	O Yes
e	Were you easily startled?	O No	O Yes
	J5 (SUMMARY): ARE **2** OR MORE **J5** ANSWERS CODED **YES?**	=> O No	O Yes

J6 During the past month, have these problems significantly interfered with your work or social activities, or caused significant distress? O No O Yes

IS **J6** CODED **YES?**

O No O Yes

Posttraumatic Stress Disorder CURRENT

CHRONOLOGY

J7 How old were you when you first began having symptoms of PTSD? ☐☐ years

J8 Since the first onset how many illness periods of PTSD did you have? ☐☐ # of episodes

J9 During the past year, for how many months did you have significant symptoms of PTSD? ☐☐ months

---

K. ALCOHOL ABUSE AND DEPENDENCE

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

K1 **In the <u>past 12 months</u>**, have you had 3 or more alcoholic drinks within a 3 hour period on 3 or more occasions? => ○ No ○ Yes

K2 **In the past 12 months:**

a Did you need to drink more in order to get the same effect that you got when you first started drinking? ○ No ○ Yes

b When you cut down on drinking, did your hands shake, did you sweat or feel agitated? Did you drink to avoid these symptoms or to avoid being hungover, for example, "the shakes", sweating or agitation? If **YES** to either question, code **YES.** ○ No ○ Yes

c During the times when you drank alcohol, did you end up drinking more than you planned when you started? ○ No ○ Yes

d Have you tried to reduce or stop drinking alcohol but failed? ○ No ○ Yes

e On the days that you drank, did you spend substantial time in obtaining alcohol, drinking, or in recovering from the effects of alcohol? ○ No ○ Yes

f Did you spend less time working, enjoying hobbies, or being with others because of your drinking? ○ No ○ Yes

g Have you continued to drink even though you knew that the drinking caused you health or mental problems? ○ No ○ Yes

ARE 3 OR MORE **K2** ANSWERS CODED **YES?** ○ No ○ Yes *

* IF **YES,** SKIP **K3** QUESTIONS, ANSWER N/A IN ABUSE BOX MOVE TO NEXT DISORDER. DEPENDENCE PREEMPTS ABUSE

ALCOHOL DEPENDENCE CURRENT

K3 **In the past 12 months:**

a Have you been intoxicated, high, or hungover more than once when you had other responsibilities at school, at work, or at home? Did this cause any problems? (CODE **YES** ONLY IF THIS CAUSED PROBLEMS.) O No O Yes

b Were you intoxicated more than once in any situation where you were physically at risk, for example, driving a car, riding a motorbike, using machinery, boating, etc.? O No O Yes

c Did you have legal problems more than once because of your drinking, for example, an arrest or disorderly conduct? O No O Yes

d Did you continue to drink even though your drinking caused problems with your family or other people? O No O Yes

ARE 1 OR MORE **K3** ANSWERS CODED **YES?** O No O N/A O Yes

ALCOHOL ABUSE CURRENT

K. LIFETIME ALCOHOL ABUSE AND DEPENDENCE

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

K4 **Did you <u>ever</u>** have 3 or more alcoholic drinks within a 3 hour period on 3 or more occasions? => O No O Yes

K5 **In your lifetime:**

a Did you need to drink more in order to get the same effect that you did when you first started drinking? O No O Yes

b When you cut down on drinking did your hands shake, did you sit or feel agitated? Did you drink to avoid these symptoms or to avoid being hungover, for example, "the shakes", seating or agitation? IF **YES** TO EITHER QUESTIONS, CODE **YES.** O No O Yes

c During the times when you drank alcohol, did you end up drinking more than you planned when you started? O No O Yes

d Have you tried to reduce or stop drinking alcohol but failed? O No O Yes

e On the days that you drank, did you spend substantial time in obtaining alcohol, drinking, or in recovering from the effects of alcohol? O No O Yes

f Did you spend less time working, enjoying hobbies, or being with others because of your drinking? O No O Yes

g Have you continued to drink even though you knew that the drinking caused you health or mental problems? O No O Yes

ARE **3** OR MORE **K5** ANSWERS CODED **YES?** O No O Yes *

* IF **YES**, SKIP **K6** QUESTIONS, ANSWER N/A IN ABUSE BOX MOVE TO NEXT DISORDER. DEPENDENCE PREEMPTS ABUSE

ALCOHOL DEPENDENCE
LIFETIME

K6 **In your lifetime:**

a Have you been intoxicated, high, or hungover more than once when you had other responsibilities at school, at work, or at home? Did this cause any problems? (CODE YES ONLY IF THIS CAUSED PROBLEMS.) O No O Yes

b Were you intoxicated in any situation where you were physically at risk, for example,drivng a car, driving a motorbike, using machinery, boating etc.? O No O Yes

c Have you had any legal problems because of your drinking, for example, an arrest or disorderly conduct? O No O Yes

d Have you continued to drink even though your drinking caused problems with your family or other people? O No O Yes

ARE **1** OR MORE **K6** ANSWERS CODED **YES?** O No O N/A O Yes

ALCOHOL ABUSE
LIFETIME

L. NON-ALCOHOL PSYCHOACTIVE SUBSTANCE USE DISORDERS

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

Now, I am going to show you/read to you a list of street drugs or medicines.

L1

a **Have you ever taken** any of these drugs more than once to get high, to feel better, or to change your mood? => O No O Yes

Fill IN THE CIRCLE ON THE LEFT OF EACH DRUG TAKEN:

Stimulants: O amphetamines O "speed" O crystal meth O "rush" O Dexedrine O Ritalin O diet pills

Cocaine: O snorting O IV O freebase O crack O "speedball"

Narcotics: O heroin O morphine O Dilaudid O opium O Demerol O methadone O codeine O Percodan O Darvon O OxyContin

Hallucinogens: O LSD ("acid") O mescaline O peyote O PCP ("Angel Dust", "peace pill") O psilocybin O STP O "mushrooms" O ecstasy O MDA O MDMA

Inhalants: O "glue" O ethyl chloride O nitrous oxide ("laughing gas") O amyl O butyl nitrate ("poppers")

Marijuana: O hashish ("hash") O THC O "pot" O "grass" O "weed" O "reefer"

Tranquilizer: O Quaalude O Seconal ("reds") O Valium O Xanax O Librium O Ativan O Dalmane O Halcion O Barbiturates O Miltown

Miscellaneous: O steroids O nonprescription sleep or diet pills O GHB Any others?

Specify most used drugs on the next page

Please specify any drugs if any other drugs have been taken*:

ONLY ONE DRUG/DRUG CLASS HAS BEEN USED	O
ONLY THE MOST USED DRUG CLASS IS INVESTIGATED	O
EACH DRUG CLASS USED IS EXAMINED SEPARATELY	O

b SPECIFY WHICH DRUG/DRUG CLASS WILL BE EXPLORED IN THE INTERVIEW BELOW IF THERE IS CONCURRENT OR SEQUENTIAL POLYSUBSTANCE USE:

L2 **Considering the (name of drug /drug class selected), in your lifetime:**

a	Have you found that you needed to use more (name of drug / drug class selected) to get the same effect that you did when you first started taking it?	O No	O Yes
b	When you reduced or stopped using (name of drug /drug class selected), did you have withdrawal symptoms (aches, shaking, fever, weakness, diarrhea, nausea, sweating, heart pounding, difficulty sleeping, or feeling agitated, anxious, irritable or depressed)? Did you use any drug(s) to keep yourself from getting sick (withdrawal symptoms) or so that you would feel better? IF **YES** TO EITHER QUESTION, CODE **YES.**	O No	O Yes
c	Have your often found that when you used (name of drug/drug class selected), you ended up taking more than you thought you would?	O No	O Yes
d	Have you tried to reduce or stop taking (name of drug /drug class selected), but failed?	O No	O Yes
e	On the days that you used (name of drug / drug class selected), did you spend substantial time (> 2 hours) in obtaining, using or in recovering from drug(s), or thinking about drug(s)?	O No	O Yes
f	Did you spend less time working, enjoying hobbies, or being with family or friends because of your drug use?	O No	O Yes
g	Have you continued to use (name of drug / drug class selected) even though it caused you health or mental problems?	O No	O Yes

ARE **3** OR MORE **L2** ANSWERS CODED **YES?** O No O Yes

SUBSTANCE DEPENDENCE LIFETIME

Please specify drugs:

L3

a Have you used (most used drug, any drug) in the past 12 months? => O No O Yes

b ARE **3** OR MORE **L2** ANSWERS CODED **YES** WITHIN THE PAST 12 MONTHS? O No O Yes

ARE **L3a** AND **b** CODED **YES?** => O No O Yes

SUBSTANCE DEPENDENCE CURRENT

Please specify drugs:

L4 **Considering your use of (name the drug / drug class selected), in the past 12 months:**

a Have you been intoxicated, high, or hungover from (name of drug /drug class selected) more than once, when you had other responsibilities at school, at work, or at home? Did this cause any problem? (CODE **YES** ONLY IF THIS CAUSED PROBLEMS). O No O Yes

b Have you been high or intoxicated from (name of drug /drug class selected) more than once, in any situation where you were physically at risk, (for example, driving a car, riding a motorbike, using machinery, boating, etc.)? O No O Yes

c Did you have legal problems more than once, because of your drug use, for example, an arrest or disorderly conduct? O No O Yes

d Did you continue to use (name of drug / drug class selected) even though it caused problems with your family or other poeple? O No O Yes

ARE **1** OR MORE **L4** ANSWERS CODED **YES?** O No O Yes

SUBSTANCE ABUSE
CURRENT

Please specify drugs:

CHRONOLOGY

L5 How old were you when you first began having problems with drug abuse? [ ][ ] years

M. PSYCHOTIC DISORDERS - PART 1

ASK FOR AN EXAMPLE OF EACH QUESTION ANSWERED POSITIVELY. CODE **YES** ONLY IF THE EXAMPLES CLEARLY SHOW A DISTORTION OF THOUGHT OR OF PERCEPTION OR IF THEY ARE NOT CULTURALLY APPROPRIATE. BEFORE CODING, INVESTIGATE WHETHER DELUSIONS QUALIFY AS "BIZARRE".

DELUSIONS ARE "BIZARRE" IF: CLEARLY IMPLAUSIBLE, ABSURD, NOT UNDERSTANDABLE, AND CANNOT DERIVE FROM ORDINARY LIFE EXPERIENCE.

HALLUCINATIONS ARE SCORED "BIZARRE" IF A VOICE COMMENTS ON THE PERSON'S THOUGHTS OR BEHAVIOR, OR WHEN TWO OR MORE VOICES ARE CONVERSING WITH EACH OTHER.

ALL OF THE PATIENT'S RESPONSES TO THE QUESTIONS SHOULD BE CODED IN COLUMN A. USE THE CLINICIAN JUDGMENT COLUMN (COLUMN B) ONLY IF THE CLINICIAN KNOWS FROM OTHER OUTSIDE EVIDENCE (FOR EXAMPLE, FAMILY INPUT) THAT THE SYMPTOM IS PRESENT BUT IS BEING DENIED BY THE PATIENT.

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

		COLUMN A Patient Response			COLUMN B Clinician Response (if necessary)		
		No	Yes	Yes/Bizarre	No	Yes	Yes/Bizarre
M1 a	Have you ever believed that people were spying on you, or that someone was plotting against you, or trying to hurt you?	○	○	○	○	○	○
b	If **YES:** Do you currently believe these things? **NOTE:** ASK FOR EXAMPLES, TO RULE OUT ACTUAL STALKING	○	○	○ **==> M6**	○	○	○ **==> M6**
M2 a	Have you ever believed that someone was reading your mind or could hear your thoughts or that you could actually read someone's mind or hear what another person was thinking?	○	○	○	○	○	○
b	If **YES:** Do you currently believe these things?	○	○	○ **==> M6**	○	○	○ **==> M6**
M3 a	Have you every believed that someone or some force outside of yourself put thoughts in your mind that were not your own, or made you act in a way that was not your usual self? Have you ever felt that you were possessed? CLINICIAN: ASK FOR EXAMPLES AND DISCOUNT ANY THAT ARE NOT PSYCHOTIC.	○	○	○	○	○	○
b	If **YES:** Do you currently believe these things?	○	○	○ **==> M6**	○	○	○ **==> M6**
M4 a	Have you ever believed that you were being sent special messages through the TV, radio, or newspaper, or that a person you did not personally know was particularly interested in you?	○	○	○	○	○	○
b	If **YES:** Do you currently believe these things?	○	○	○ **==> M6**	○	○	○ **==> M6**

		COLUMN A Patient Response			COLUMN B Clinician Response		
		No	Yes	Yes/Bizarre	No	Yes	Yes/Bizarre
M5 a	Have your relatives or friends ever considered any of your beliefs strange or unusual?	○	○	○	○	○	○
	INTERVIEWER: ASK FOR EXAMPLES. CODE YES ONLY IF THE EXAMPLES ARE **CLEARLY** DELUSIONAL IDEAS (FOR EXAMPLE, SOMATIC OR RELIGIOUS DELUSIONS OR DELUSIONS OF GRANDIOSITY, JEALOUSY, GUILT, RUIN OR DESTITUTION OR OTHERS NOT EXPLORED IN **M1** TO **M4).**						
b	IF **YES:** Do they currently consider your beliefs strange?	○	○	○	○	○	○
M6 a	Have you ever heard things other people couldn't hear, such as voices?	○	○		○	○	○
	HALLUCINATIONS ARE SCORED "BIZARRE" ONLY IF PATIENT ANSWERS YES TO THE FOLLOWING:						
	IF **YES**:Did you hear a voice commenting on your thoughts or behavior, or did you hear two or more voices talking to each other?			○			
b	IF **YES:** Have you heard these things in the past month?	○	○	○ **==> M8**	○	○	○ **==> M8**
	SCORE AS "YES/BIZARRE" IF PATIENT HEARD A VOICE COMMENTING ON HIS/HER THOUGHTS OR BEHAVIOR OR HEARD TWO OR MORE VOICES TALKING TO EACH OTHER.						
M7 a	Have you ever had visions when you were awake or have you ever seen things other people couldn't see?	○	○		○	○	
	CLINICIAN: CHECK TO SEE IF THESE ARE CULTURALLY INAPPROPRIATE.						
b	If YES: Have you seen these things in the past month?	○	○		○	○	

CLINICIAN'S JUDGMENT

M8 b Is the patient currently exhibiting incoherence, disorganized speech, or marked loosening of associations? ○ No ○ Yes

M9 b Is the patient currently exhibiting disorganized or catatonic behavior? ○ No ○ Yes

M10 b Are negative symptoms of schizophrenia, for example, significant affective flattening, poverty of speech (alogia) or an inability to initiate or persist in goal-directed activities (avolition) prominent during the interview? ○ No ○ Yes

M11 a IS THERE AT LEAST ONE "**YES**" FROM **M1** TO **M10b?** ○ No ○ Yes

M11 b

ARE THE ONLY SYMPTOMS PRESENT THOSE IDENTIFIED BY THE CLINICIAN FROM **M1** TO **M7** (COLUMN B) AND FROM **M8b** OR **M9b** OR **M10b?**

IF **YES,** SPECIFY IF THE LAST EPISODE IS CURRENT (AT LEAST ONE "b" QUESTION IS CODED "**YES"** FROM **M1** TO **M10b)** AND/OR LIFETIME (ANY QUESTION CODED YES FROM M1 TO M10b AND PASS TO THE NEXT DIAGNOSTIC SECTION.

IF **NO,** CONTINUE.

WARNING:
IF AT LEAST ONE **"b"** QUESTION IS CODED **YES,** CODE **M11c** AND **M11d.**
IF ALL **"b"** QUESTIONS ARE CODED **NO,** CODE ONLY **M11d.**

O No O Yes

PSYCHOTIC DISORDER NOT OTHERWISE SPECIFIED*

Current O

Lifetime O

* Provisional diagnosis due to insufficient information available at this time.

M11 c

FROM **M1** TO **M10b:** ARE ONE OR MORE "b" ITEMS CODED "**YES BIZARRE**"?
ARE TWO OR MORE "b" ITEMS CODED "**YES"** BUT NOT "**YES BIZARRE**"?

O No

Then Criterion "A" of Schizophrenia is not currentlv met

O Yes

Then Criterion "A" of Schizophrenia is currently met

M11 d

FROM **M1** TO **M10b:** ARE ONE OR MORE "a" ITEMS CODED "**YES BIZARRE**"

OR

ARE TWO OR MORE "a" ITEMS CODED "YES" BUT NOT "**YES BIZARRE**"?
(CHECK THAT THE 2 ITEMS OCCURRED DURING THE SAME TIME PERIOD.)

O No

Then Criterion "A" of Schizophrenia is not met Lifetime

OR IS **M11c** CODED "**YES"**

O Yes

Then Criterion "A" of Schizophrenia is met Lifetime

M12

a Were you taking any drugs or medicines just before these symptoms began? ○ No ○ Yes

b Did you have any medical illness just before these symptoms began? ○ No ○ Yes

c IN THE CLINICIAN'S JUDGMENT, IS EITHER OF THESE LIKELY TO BE DIRECT CAUSE OF THE PATIENT'S PSYCHOSIS? ○ No ○ Yes

IF NECESSARY, ASK OTHER OPEN-ENDED QUESTIONS

d HAS AN ORGANIC CAUSE BEEN RULED OUT? ○ No ○ Yes ○ Uncertain

IF **M12d=NO:** SCORE **M13(a,b**) AND GO TO THE NEXT DISORDER
IF **M12d=YES:** CODE NO IN **M13(a,b)** AND GO TO **M14**
IF **M12D=UNCERTAIN:** CODE UNCERTAIN IN **M13 (a,b)** AND GO TO **M14**

M13

a IS **M12d** CODED **NO** BECAUSE OF A GENERAL MEDICAL CONDITION? ○ No ○ Yes

IF **YES,** SPECIFY IF THE LAST EPISODE IS

CURRENT (AT LEAST ONE "b" QUESTION IS CODED **YES** FROM **M1** TO **M10b)**
AND/OR LIFETIME ("a" OR "b") QUESTION IS CODED **YES** FROM **M1** TO **M10b.**

PSYCHOTIC DISORDER Due to a General Medical Condition

Current ○
Lifetime ○
Uncertain ○

M13

b IS **M12d** CODED NO BECAUSE OF A DRUG? ○ No ○ Yes

IF **YES,** SPECIFY IF THE LAST EPISODE IS
CURRENT (AT LEAST ONE QUESTION "b" IS CODED **YES** FROM **M1** TO **M10b**)
AND/OR LIFETIME (ANY "a" OR "b" QUESTION CODED **YES** FROM **M1** TO **M10b**).

Substance Induced *PSYCHOTIC DISORDER*

Current ○
Lifetime ○
Uncertain ○

M14

How long (days) was the longest period during which you had those beliefs or experiences?
IF <1 DAY, GO TO THE NEXT SECTION

				Days

M15

a During or after a period when you had these beliefs or experiences, did you have difficulty working, or difficulty in your relationship with others, or in taking care of yourself? ○ No ○ Yes

b IF **YES,** how long (weeks) did these difficulties last?
IF>=6 MONTHS, GO TO **M16** ☐☐☐ Weeks

c Have you been treated with medications or were you hospitalized because of these beliefs or experiences, or the difficulties caused by these problems? ○ No ○ Yes

d IF **YES,** what was the longest time you were treated with medication or were hospitalized for these problems? ☐☐☐ Weeks

M16

a THE PATIENT REPORTED DISABILITY **(M15a CODED YES**) OR WAS TREATED OR HOSPITALIZED FOR PSYCHOSIS (**M15c=YES**) ○ No ○ Yes

b CLINICIAN'S JUDGMENT: CONSIDERING YOUR EXPERIENCE, RATE THE PATIENT'S **LIFETIME** DISABILITY CAUSED BY THE PSYCHOSIS.

1 ○ absent
2 ○ mild
3 ○ moderate
4 ○ severe

M17

WHAT WAS THE DURATION OF THE PSYCHOSIS, TAKING INTO ACCOUNT THE ACTIVE PHASE (**M14)** AND THE ASSOCIATED DIFFICULTIES (**M15b)** AND PSYCHIATRIC TREATMENT (**M15d)**

1 ○ >=1 day to <1 month
2 ○ >=1 month to <6 months
3 ○ >=6 months

CHRONOLOGY

M18

a How old were you when you first began having these unusual beliefs or experiences? ☐☐ Years

b Since the first onset how many distinct times did you have significant episodes of these unusual beliefs or experiences? ☐☐ Number of Episodes

PSYCHOTIC DISORDERS - PART 2

DIFFERENTIAL DIAGNOSIS BETWEEN PSYCHOTIC AND MOOD DISORDERS

CODE THE QUESTIONS **M19** TO **M23** ONLY IF THE PATIENT DESCRIBED AT LEAST 1 PSYCHOTIC SYMPTOM (**M11a=**YES AND **M11b=**NO), NOT EXPLAINED BY AN ORGANIC CAUSE (**M12d=YES** OR **UNCERTAIN**).

M19

a DOES THE PATIENT CODE POSITIVE FOR CURRENT AND/OR PAST MAJOR DEPRESSIVE EPISODE (QUESTION **A8** CODED **YES**)? O No O Yes

b IF **YES:** IS **A1** (DEPRESSED MOOD) CODED **YES**? O No O Yes

c DOES THE PATIENT CODE POSITIVE FOR CURRENT AND/OR PAST MANIC EPISODE (QUESTION **D7** IS CODED **YES**)? O No O Yes

d IS **M19a** OR **M19c** CODED **YES?** O No O Yes

↓

STOP!
Skip to M24

NOTE: VERIFY THAT THE RESPONSES TO THE QUESTIONS **M20** TO **M23** REFER TO THE PSYCHOTIC, DEPRESSIVE (**A8**) AND MANIC EPISODES (**D7**), ALREADY IDENTIFIED IN **M11c** AND **M11d, A8** AND **D7.** IN CASE OF DISCREPANCIES, REEXPLORE THE SEQUENCE OF DISORDERS, TAKING INTO ACCOUNT IMPORTANT LIFE ANCHOR POINTS/MILESTONES AND CODE **M20** TO **M23** ACCORDINGLY.

M20 When you were having the beliefs and experiences you just described (GIVE EXAMPLES TO PATIENT), were you also feeling depressed/high/irritable at the same time? O No O Yes

↓

STOP! Skip to M24

M21 Were the beliefs or experiences you just described (GIVE EXAMPLES TO PATIENT) restricted exclusively to times you were feeling depressed/high/irritable? O No O Yes

↓

STOP! Skip to M24

M22 Have you ever had a period of two weeks or more of having these beliefs or experiences when you were not feeling depressed/high/irritable? O No O Yes

↓

STOP! Skip to M24

M23 Which lasted longer: these beliefs or experiences or the periods of feeling depressed/high/irritable?

1 O mood
2 O beliefs, experiences
3 O same

M24

AT THE END OF THE INTERVIEW, GO TO THE DIAGNOSTIC ALGORITHMS FOR PSYCHOTIC DISORDERS.

CONSULT ITEMS **M11a** AND **M11b:**

IF THE CRITERION "A" OF SCHIZOPHRENIA IS MET (**M11c** AND/OR **M11d=YES**) GO TO DIAGNOSTIC ALGORITHMS I

IF THE CRITERION "A" OF SCHIZOPHRENIA IS NOT MET (**M11c** AND/OR **M11d=NO**) GO TO DIAGNOSTIC ALGORITHMS II

FOR MOOD DISORDERS GO TO DIAGNOSTIC ALGORITHM III

N. ANOREXIA NERVOSA

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

N1

a How tall are you? ft [ ][ ] in [ ][ ] **OR** cm [ ][ ][ ]

b What was your lowest weight in the past 3 months? lbs [ ][ ][ ] **OR** kgs. [ ][ ][ ]

=>

IS PATIENT'S WEIGHT LOWER THAN THE THRESHOLD CORRESPONDING TO HIS/HER HIEGHT? (SEE TABLE BELLOW) O No O Yes

TABLE HEIGHT/WEIGHT THRESHOLD (height-without shoes; weight-without clothing)

Female Height/Weight

ft/in.	4'9	4'10	4'11	5'0	5'1	5'2	5'3	5'4	5'5	5'6	5'7	5'8	5'9	5'10
lbs.	84	85	86	87	89	92	94	97	99	102	104	107	110	112
cms.	145	147	150	152	155	158	160	163	165	168	170	173	175	178
kgs.	38	39	39	40	41	42	43	44	45	46	47	49	50	51

Male Height/Weight

ft/in.	5'1	5'2	5'3	5'4	5'5	5'6	5'7	5'8	5'9	5'10	5'11	6'0	6'1	6'2	6'3
lbs.	105	106	108	110	111	113	115	116	118	120	122	125	127	130	133
cms.	155	156	160	163	165	168	170	173	175	178	180	183	185	188	191
kgs.	47	48	49	50	51	51	52	53	54	55	56	57	58	59	61

The weight thresholds above are calculated as a 15% reduction below the normal range for the patient's height and gender as required by DSM-IV. This table reflects weights that are 15% lower than the low end of the normal distribution range in the Metropolitan Life Insurance Table of Weights.

In the past 3 months:

=>

N2 In spite of this low weight, have you tried not to gain weight? O No O Yes

=>

N3 Have you feared gaining weight or becoming fat? O No O Yes

N4

a Have you considered yourself fat or that part of your body was too fat? O No O Yes

b Has your body weight or shape greatly influenced how you felt about yourself? O No O Yes

c Have you thought that your current low body weight was normal or excessive? O No O Yes

=>

N5 ARE 1 OR MORE ITEMS FROM **N4** CODED **YES?** O No O Yes

=>

N6 **FOR WOMEN ONLY:** During the last 3 months, did you miss all your menstrual periods when they were expected to occur (when you were not pregnant)? O No O Yes

FOR WOMEN: ARE **N5** AND **N6** CODED **YES?**

FOR MEN: IS **N5** CODED **YES?**

=>

○ No ○ Yes

ANOREXIA NERVOSA
CURRENT

CHRONOLOGY

N7 How old were you when you first began having symptoms of anorexia? ☐☐ Years

N8 Since the first onset how many distinct illness periods of anorexia did you have? ☐☐☐ Number of Episodes

N9 During the past year, for how many months did you have significant symptoms of anorexia? ☐☐☐ Months

O. BULIMIA NERVOSA

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT**

O1 In the past three months, did you have eating binges or times when you ate a very large amount of food within a 2-hour period? => O No O Yes

O2 In the last 3 months, did you have eating binges as often as twice a week? => O No O Yes

O3 During these binges, did you feel that your eating was out of control? => O No O Yes

O4 Did you do anything to compensate for, or to prevent a weight gain from these binges, like vomiting, fasting, exercising or taking laxatives, enemas, diuretics (fluid pills), or other medications? => O No O Yes

O5 Does your body weight or shape greatly influence how you feel about yourself? => O No O Yes

O6 DO THE PATIENT'S SYMPTOMS MEET CRITERIA FOR ANOREXIA NERVOSA? O No O Yes

↓ **Skip to O8**

O7 Do these binges occur only when you are under(_____lbs/kgs)? O No O Yes
INTERVIEWER: WRITE IN THE ABOVE PARENTHESIS THE THRESHOLD WEIGHT FOR THIS PATIENT'S HEIGHT FROM THE HEIGHT/WEIGHT TABLE IN THE ANOREXIA NERVOSE MODULE (PAGE 29)

O8 IS **O5** CODED **YES** AND **O7** CODED NO OR SKIPPED? O No O Yes

BULIMIA NERVOSA
CURRENT

CHRONOLOGY

O9 How old were you when you first began having symptoms of bulimia? ☐☐ Age

O10 Since the first onset how many illness periods of bulimia did you have? ☐☐☐ Number of Episodes

O11 During the past year, for how many months did you have significant symptoms of bulimia? ☐☐☐ Months

SUBTYPES OF BULIMIA NERVOSA

Do you regularly engage in self induced vomiting, misuse of laxatives, diuretics or enemas?

O No O Yes

IN THE NON-PURGING TYPE, HAS THE PATIENT USED OTHER COMPENSATORY BEHAVIORS SUCH AS FASTING OR EXCESSIVE EXERCISE, BUT NOT PURGING?

Non-Purging Type

Purging Type

BULIMIA NERVOSA

SUBTYPES OF ANOREXIA NERVOSA

Binge-Eating/Purging Type

IS **O7** CODED **YES?**

O No O Yes

ANOREXIA NERVOSA
Binge Eating/Purging Type
CURRENT

Restricting Type

Do you lose weight without purging?

O No O Yes

ANOREXIA NERVOSA
Restricting Type
CURRENT

P. GENERALIZED ANXIETY DISORDER

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

P1 a	Have you worried excessively or been anxious about several things over the past 6 months?	=> O No	O Yes
b	Are these worries present most days?	=> O No	O Yes
	IS THE PATIENT'S ANXIETY RESTRICTED EXCLUSIVELY TO , OR BETTER EXPLAINED BY, ANY DISORDER PRIOR TO THIS POINT?	O No	=> O Yes
P2	Do you find it difficult to control the worries or do they interfere with your ability to focus on what you are doing?	=> O No	O Yes
P3	FOR THE FOLLOWING, CODE **NO,** IF THE SYMPTOMS ARE CONFINED TO FEATURES OF ANY DISORDER EXPLORED PRIOR TO THIS POINT.		
	When you were anxious over the past 6 months, most of the time did you:		
a	Feel restless, keyed up or on edge?	O No	O Yes
b	Feel tense?	O No	O Yes
c	Feel tired, weak or exhausted easily?	O No	O Yes
d	Have difficulty concentrating or find your mind going blank?	O No	O Yes
e	Feel irritable?	O No	O Yes
f	Have difficulty sleeping (difficulty falling asleep, waking up in the middle of the night, early morning wakening) or sleeping excessively?	O No	O Yes
	SUMMARY OF P3: ARE 3 OR MORE **P3** ANSWERS CODED **YES?**	=> O No	O Yes
P4	Did these symptoms of anxiety cause you significant distress or impair your ability to function at work, socially, or in some other important way?	=> O No	O Yes
P5 a	Were you taking any drugs or medicines just before these symptoms began?	O No	O Yes
b	Did you have any medical illness just before these symptoms began?	O No	O Yes
	IN THE CLINICIAN'S JUDGMENT: IS EITHER OF THESE LIKELY TO BE DIRECT CAUSE OF THE PATIENT'S GENERALIZED ANXIETY DISORDER?		
	P5 (SUMMARY): HAS AN ORGANIC CAUSE BEEN RULED OUT?	O No	O Yes

IS **P5 (SUMMARY)** CODED **YES?** O No O Yes

GENERALIZED ANXIETY DISORDER CURRENT

P6 IS **P5 (SUMMARY)** CODED **NO** AND **P5b** CODED **YES?**

O No O Yes

CURRENT
GENERALIZED ANXIETY DISORDER
Due to a General
Medical Condition

P7 IS **P5 (SUMMARY)** CODED **NO** AND **P5a** CODED **YES?**

O No O Yes

CURRENT
Substance Induced
Generalized Anxiety Disorder

CHRONOLOGY

P8 How old were you when you first began having symptoms of generalized anxiety?

☐☐ Age

P9 During the past year, for how many months did you have significant symptoms of generalized anxiety?

☐☐☐ Months

Q. ANTISOCIAL PERSONALITY DISORDER (optional)

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

Q1 **Before you were 15 years old, did you:**

a	repeatedly skip school or run away from home overnight?	O No	O Yes
b	repeatedly lie, cheat, "con" others, or steal?	O No	O Yes
c	start fights or bully, threaten, or intimidate others?	O No	O Yes
d	deliberately destroy things or start fires?	O No	O Yes
e	deliberately hurt animals or people?	O No	O Yes
f	force someone to have sex with you?	O No	O Yes
		=>	
	ARE **2** OR MORE **Q1** ANSWERS CODED **YES?**	O No	O Yes

DO NOT CODE **YES** TO THE BEHAVIORS BELOW IF THEY ARE EXCLUSIVELY POLITICALLY OR RELIGIOUSLY MOTIVATED

Q2 **Since you were 15 years old, have you:**

a	repeatedly behaved in a way that others would consider irresponsible, like failing to pay for things you owed, deliberately being impulsive or deliberately not working to support yourself?	O No	O Yes
b	done things that are illegal even if you didn't get caught (for example, destroying property, shoplifting, stealing, selling drugs, or committing a felony?)	O No	O Yes
c	been in physical fights repeatedly (including physical fights with your spouse or children)?	O No	O Yes
d	often lied or "conned" other people to get money or pleasure, or lied just for fun?	O No	O Yes
e	exposed others to danger without caring?	O No	O Yes
f	felt no guilt after hurting, mistreating, lying to, or stealing from others, or after damaging property?	O No	O Yes

ARE **3** OR MORE **Q2** QUESTIONS CODED **YES?** O No O Yes

ANTISOCIAL PERSONALITY DISORDER LIFETIME

R. SOMATIZATION DISORDER (optional)

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

R1 a Have you had **many** physical complaints not clearly related to a specific disease beginning before age 30? => O No O Yes

b Did these physical complaints occur over several years? => O No O Yes

c Did these complaints lead you to seek treatment? => O No O Yes

d Did these complaints cause significant problems at school, at work, socially, or in other important areas? => O No O Yes

R2 Did you have pain in your:

head	O No	O Yes
abdomen	O No	O Yes
back	O No	O Yes
joints, extremities, chest, rectum	O No	O Yes
during menstruation	O No	O Yes
during sexual intercourse	O No	O Yes
during urination	O No	O Yes

ARE **2** OR MORE **R2** ANSWERS CODED **YES?** => O No O Yes

R3 Did you have any of the following abdominal symptoms:

nausea	O No	O Yes
bloating	O No	O Yes
vomiting	O No	O Yes
diarrhea	O No	O Yes
intolerance of several different foods	O No	O Yes

ARE **2** OR MORE **R3** ANSWERS CODED **YES?** => O No O Yes

R4 Did you have any of the following sexual symptoms:

loss of sexual interest	O No	O Yes
erection or ejaculation problems	O No	O Yes
irregular menstrual bleeding	O No	O Yes
excessive menstrual bleeding	O No	O Yes
vomiting throughout pregnancy	O No	O Yes

ARE **2** OR MORE **R4** ANSWERS CODED **YES?** => O No O Yes

R5 Did you have any of the following symptoms:

paralysis or weakness in parts of your body	O No	O Yes
impaired coordination or imbalance	O No	O Yes
difficulty swallowing or lump in throat	O No	O Yes
difficulty speaking	O No	O Yes
difficulty emptying your bladder	O No	O Yes
loss of touch or pain sensation	O No	O Yes
double vision or blindness	O No	O Yes
deafness, seizure, loss of consciousness	O No	O Yes
significant episodes of forgetfulness	O No	O Yes
unexplained sensations in your body	O No	O Yes

CLINICIAN: PLEASE EVALUATE IF THESE ARE SOMATIC HALLUCINATIONS

ARE **2** OR MORE **R5** ANSWERS CODED **YES?** => O No O Yes

R6 Were the symptoms investigated by your physician? O No O Yes

R7 Was any medical illness found, or were you using any drug or medication that could explain these symptoms? O No O Yes

R6 AND R7 (SUMMARY): CLINICIAN: HAS AN ORGANIC CAUSE BEEN RULED OUT? O No O Yes

R8 Were the complaints or disability out of proportion to the patient's physical illness? O No O Yes

=>

IS **R7 (SUMMARY)** OR **R8** CODED **YES?** O No O Yes

=>

R9 Were the symptoms a pretense or intentionally produced (as in factitious disorder)? O No O Yes

IS **R9** CODED **NO**

O No O Yes

SOMATIZATION DISORDER LIFETIME

R10 Are you currently suffering from these symptoms?

O No O Yes

SOMATIZATION DISORDER CURRENT

S. HYPOCHONDRIASIS

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

S1 In the past six months, have you worried a lot about having a serious physical illness? => O No O Yes

DO NOT CODE YES IF ANY PHYSICAL DISORDER CAN ACCOUNT FOR THE PHYSICAL SENSATIONS OR SIGNS THE PATIENT DESCRIBES.

S2 Have you had this worry for 6 months or more? => O No O Yes

S3 Have you ever been examined by a doctor for these symtpoms? => O No O Yes

S4 Have your illness fears persisted in spite of the doctor's reassurance? => O No O Yes

S5 Does this worry cause you significant distress, or does it interfere with your ability to function at work, socially, or in other important ways? O No O Yes

S6 IS **S5** CODED **YES?**

O No O Yes

HYPOCHONDRIASIS CURRENT

U. PAIN DISORDER

=> **MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE**

U1	Currently, is pain your main problem?	=> O No	O Yes
U2	Currently, is the pain severe enough to need medical attention?	=> O No	O Yes
U3	Currently, is the pain causing you significant distress, or interfering significantly with your ability to function at work, socially, or in some other important way?	=> O No	O Yes
U4	Did psychological factors or stress have an important role in the onset of the pain, or did they make it worse, or keep it going?	=> O No	O Yes
U5	Observed Rating: Is the pain a pretense or intentionally produced or feigned? (As in factitious disorder)?	O No	=> O Yes
U6	Did a medical condition have an important role in the onset of the pain, or did the medical condition make it worse, or keep it going?	O No	O Yes
U7	Has the pain been present for more than 6 months?	O No	O Yes
		↓ Acute	↓ Chronic

U8 IS **U6** CODED **NO?**

O No O Yes

PAIN DISORDER associated with psychological factors CURRENT

U9 IS **U6** CODED **YES?**

O No O Yes

PAIN DISORDER associated with psychological factors and general medical conditions CURRENT

IF **U8** OR **U9** ARE CODED **YES**
AND **U7=NO**, ACUTE DIAGNOSIS IS AUTOMATICALLY REPORTED
AND **U7=YES**, CHRONIC DIAGNOSIS IS AUTOMATICALLY REPORTED.

ATTENTION DEFICIT/HYPERACTIVITY DISORDER

(Adult)

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

W5 As a child:

a	Were you active, fidgety, restless, always on the go?	O No	O Yes
b	Were you inattentive and easily distractible?	O No	O Yes
c	Were you unable to concentrate at school or while doing your homework?	O No	O Yes
d	Did you fail to finish things, such as school work, projects, etc.?	O No	O Yes
e	Were you short tempered, irritable, or did you have a "short fuse", or tend to explode.	O No	O Yes
f	Did things have to be repeated to you many times before you did them?	O No	O Yes
g	Did you tend to be impulsive without thinking of the consequences?	O No	O Yes
h	Did you have difficulty waiting for your turn, frequently needing to be first?	O No	O Yes
i	Did you get into fights and/or bother other children?	O No	O Yes
j	Did your school complain about your behavior?	O No	O Yes
		=>	
	W5 (SUMMARY):ARE **6** OR MORE **W5** ANSWERS CODED **YES?**	O No	O Yes

=>

W6 Did you have some of these hpyeractive-impulsive or inattentive symptoms before you were 7 years old? O No O Yes

W7 As an adult:

a	Are you still distractible?	O No	O Yes
b	Are you intrusive, or do you butt in, or say things that you later regret either to friends, at work, or home?	O No	O Yes
c	Are you impulsive, even if you have better control than when you were a child?	O No	O Yes
d	Are you still fidgety, restless, always on the go, even if you have better control than when you were a child?	O No	O Yes
e	Are you still irritable and get angrier than you need to?	O No	O Yes
f	Are you still impulsive? For example, do you tend to spend more money than you really should?	O No	O Yes
g	Do you have difficulty getting work organized?	O No	O Yes
h	Do you have difficulty getting organized even outside of work?	O No	O Yes
i	Are you under-employed or do you work below your capacity?	O No	O Yes
j	Are you not achieving according to people's expectations of your ability?	O No	O Yes
k	Have you changed jobs or have been asked to leave jobs more frequently than other people?	O No	O Yes
l	Does your spouse complain about your inattentiveness or lack of interest in him/her and/or the family?	O No	O Yes
m	Have you gone through two or more divorces, or changed partners more than others?	O No	O Yes
n	Do you sometimes feel like you are in a fog, like a snowy television or out of focus?	O No	O Yes
		=>	
	W7 (SUMMARY):ARE **9** OR MORE **W7** ANSWERS CODED **YES?**	O No	O Yes

W8 Have some of these symptoms caused significant problems in two or more of the following situations: at school, at work, at home, or with family or friends?

=> ○ No ○ Yes

IS **W8** CODED **YES?**

○ No ○ Yes

ADULT ATTENTION DEFICIT / HYPERACTIVITY DISORDER

Y. PREMENSTRUAL DYSPHORIC DISORDER

=> MEANS: GO TO THE NEXT DIAGNOSTIC BOX, FILL IN NO IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE

Y1 During the past year, were most of your menstrual periods preceded by a period lasting about one week when your mood changed significantly?

=> ○ No ○ Yes

Y2 During these periods, do you have difficulty in your usual activities or relationships with others, are you less efficient at work, or do you avoid other people?

=> ○ No ○ Yes

Y3 During these premenstrual episodes (but not in the week after your period ends) do you have the following problems most of the time.

a Do you feel sad, low, depressed, hopeless, or self-critical ○ No ○ Yes

b Do you feel particularly anxious, tense, keyed up or on edge? ○ No ○ Yes

c Do you often feel suddenly sad or tearful, or are you particulary sensitive to others' comments? ○ No ○ Yes

d Do you feel irritable, angry or argumentative? ○ No ○ Yes

ARE **1** OR MORE **Y3** ANSWERS CODED **YES?**

=> ○ No ○ Yes

e Are you less interested in your usual activities, such as work, hobbies or meeting with friends? ○ No ○ Yes

f Do you have difficulty concentrating? ○ No ○ Yes

g Do you feel exhausted, tire easily, or lack energy? ○ No ○ Yes

h Does your appetite change, or do you overeat or have specific food cravings? ○ No ○ Yes

i Do you have difficulty sleeping or do you sleep excessively? ○ No ○ Yes

j Do you feel you are overwhelmed or out of control? ○ No ○ Yes

k Do you have physical symptoms such as breast tenderness or swelling, headache, joint or muscle pain, a sensation of bloating, or weight gain? ○ No ○ Yes

ARE **5** OR MORE **Y3** ANSWERS CODED **YES?**

IF **YES,** DIAGNOSIS MUST BE CONFIRMED BY PROSPECTIVE DAILY RATINGS DURING AT LEAST 2 CONSECUTIVE CYCLES.

○ No ○ Yes

Premenstrual Dysphoric Disorder Probable
CURRENT

Diagnosis Report

Please do not write here.

Error Report

Please do not write here.

SL NO.	NAME	AGE	SEX	MARIT	EDUCAT	OCCUPATIO	RELIGIOI	SOCIC	FAMIL	YM	HAI	CTQ	PHYSICAL	PHYSICAL N	EMOTION	EMOTION	SEXUAL A	GAF
1	GANESH	29	M	unmarı	12	painter	HINDU	low	yes	4	1	YES	yes-9					60
2	JEYASHEELAN	37	M	MARRI	6	FLOWER VEI	HINDU	LOW	NO	2	3	YES			yes-10			50
3	SHEIK DAWOOI	37	M	MARRI	6	AUTODRIVEI	MUSLIM	LOW	NO	5	2	NO						60
4	JAISANKAR	42	M	MARRI	9	ELECTRICIAN	HINDU	LOW	YES	2	2	NO						70
5	GRIJA	26	F	MARRI	8	HOUSEWIFE	HINDU	LOW	NO	3	2	yes	yes-8					70
6	ARUMUGAM	36	M	MARRI	10	COOK	HINDU	LOW	YES	4	1	YES			yes13			50
7	VASANTHI	43	F	MARRI	10	HOUSEWIFE	HINDU	LOW	YES	2	3	NO						70
8	VIJAY	29	M	MARRI	12	MECHANIC	HINDU	LOW	NO	1	3	NO						80
9	DEVARAJ	24	M	UNMAI	DCE	UNEMPLOYE	HINDU	LOW	NO	3	4	YES					yes-8	50
10	SELVAKUMAR	37	M	MARRI	10	DRIVER	HINDU	LOW	YES	2	1	YES		yes-9				60
11	SENTHILKUMAI	48	M	MARRI	5	UNEMPLOYE	HINDU	LOW	NO	2	4	YES		yes-8				50
12	SWAMYAPPAN	43	M	MARRI	4	CLEANER	HINDU	LOW	NO	1	0	NO						80
13	SENTHILVEL	30	M	MARRI	10	UNEMPLOYE	HINDU	LOW	YES	2	1	no						50
14	chellappan	49	M	MARRI	8	security	HINDU	low	YES	1	1	NO						80
15	MOOIDEEN	45	M	MARRI	10	SHOPKEEPEI	MUSLIM	low	YES	1	3	NO						80
16	SELVAMANI	24	M	UNMAI	DME	MECHANIC	HINDU	LOW	YES	1	1	NO						80
17	NATRAJ	38	M	MARRI	8	UNEMPLOYE	HINDU	LOW	YES	2	4	YES	yes-8					50
18	VENKATESHAN	30	M	MARRI	MBA	PVT	HINDU	MIDD	YES	2	1	NO						60
19	UBAGAVA SELV	49	M	MARRI	10	COOLEY	HINDU	LOW	yes	1	2	NO						80
20	GANESHAN	50	M	MARRI	4	COOLEY	HINDU	LOW	YES	1	5	nO						70
21	suresh	27	M	MARRI	7	COOLEY	HINDU	low	NO	2	3	YES	yes-9					60
22	MOSES	20	M	unmarı	12	UNEMPLOYE	CHRISTIA	low	NO	4	2	NO						50
23	KUMARAGURU	32	M	unmarı	8	COOLEY	HINDU	LOW	NO	2	3	yes				yes-15		60
24	VIJAYALAKSHM	35	F	MARRI	5	HOUSEWIFE	HINDU	low	NO	4	3	NO						80
25	AMUL	37	F	MARRI	8	HOUSEWIFE	HINDU	LOW	YES	3	4	NO						60
26	JAMMUNA	33	F	MARRI	8	HOUSEWIFE	HINDU	low	NO	2	3	NO						80
27	TAMIL SELVAN	48	M	MARRI	10	UNEMPLOYE	HINDU	LOW	NO	4	2	YES			yes-11			50
28	MANI	48	M	MARRI	8	COOLEY	HINDU	low	NO	4	1	NO						70
29	MAHENDRAN	38	M	MARRI	10	DRIVER	HINDU	low	NO	3	1	NO						70
30	SARAVANAN	24	M	MARRI	8	COOLEY	HINDU	low	NO	1	1	yes		yes-10				50
31	GAJENDRAN	35	M	MARRI	10	DRIVER	HINDU	low	NO	2	2	NO						70
32	BABU	20	M	unmarı	BSC	STUDENT	HINDU	MIDD	NO	1	2	YES	yes-9					50
33	MALAR KODI	19	F	unmarı	10	HELPER	HINDU	low	yes	4	2	NO						60

34	RAMASWAMY	42	M	MARRI	5	COOLEY	HINDU	low	NO	5	2	YES		yes-9				60
35	DEVI	40	F	MARRI	8	COOLEY	HINDU	low	NO	2	1	NO						60
36	VANI	43	F	MARRI	9	HOUSEWIFE	HINDU	low	NO	3	1	NO						70
37	MALAR	23	F	MARRI	BA TAM	STUDENT	HINDU	MIDD	NO	1	1	YES	yes-8					60
38	THENDRAL	40	F	MARRI	4	COOLEY	HINDU	low	NO	5	4	NO						80
39	sooriya	27	F	MARRI	8	HOUSEWIFE	HINDU	low	NO	3	1	NO						70
40	MALLIKA	36	F	MARRI	9	HOUSEWIFE	HINDU	low	yes	2	2	NO						60
41	JOICE	26	F	MARRI	10	HOUSEWIFE	CHRISTIA	low	NO	4	3	YES				yes-15		60
42	RANI	29	F	MARRI	12	OA	HINDU	low	NO	1	4	YES			yes-11			50
43	DEVI	41	F	MARRI	10	HOUSEWIFE	HINDU	low	NO	3	3	YES			yes-12			60
44	BALACHANDRA	39	M	MARRI	10	COOLEY	HINDU	low	NO	2	1	yes				yes-16		50
45	RENGANATHAN	35	M	MARRI	10	helper	HINDU	low	NO	4	1	NO						60
46	KUMAR	28	M	MARRI	12	UNEMPLOYE	HINDU	low	yes	1	2	YES			yes-10			50
47	VINAYAGAM	31	M	MARRI	10	AUTODRIVEI	HINDU	low	NO	2	3	NO						70
48	SHOBANA	24	F	unmarı	BSC	UNEMPLOYE	HINDU	MIDD	yes	3	4	yes	yes-12		yes-10			50
49	NIRMALA	29	F	unmarı	10	UNEMPLOYE	HINDU	low	NO	1	1	NO						50
50	SHEELA DEVI	26	F	unmarı	10	COOLEY	CHRISTIA	low	NO	2	2	NO						60
51	MUNEERA BEG/	49	F	MARRI	7	HOUSEWIFE	MUSLIM	low	NO	2	3	NO						70
52	RAMESH	28	M	MARRI	12	UNEMPLOYE	HINDU	low	NO	4	4	NO						50
53	KUMAR	30	M	MARRI	12	HELPER	HINDU	low	NO	1	1	NO						70
54	SUBRAMANI	39	M	MARRI	BA	OA	HINDU	MIDD	NO	3	1	YES				yes-15		60
55	ALAGAPPAN	32	M	MARRI	12	painter	HINDU	low	NO	2	1	NO						70
56	SHANTHI	30	F	MARRI	12	HOUSEWIFE	HINDU	low	NO	1	1	NO						60
57	CHITRA	27	F	MARRI	4	HOUSEWIFE	HINDU	low	yes	3	2	NO						80
58	KOKILAMBAL	43	F	MARRI	10	HOUSEWIFE	HINDU	low	NO	2	3	yes		yes-11				60
59	SENTHILKUMAF	30	M	MARRI	6	FLOWER VEI	HINDU	low	NO	3	1	NO						60
60	VIJAYAKUMAR	28	M	MARRI	9	COURIER BO	HINDU	low	NO	4	1	YES			yes-10			60
61	VASANTHKUMA	29	M	MARRI	9	OA	HINDU	low	NO	4	1	YES	yes-8					50
62	SARAVANAN	27	M	MARRI	10	HELPER	HINDU	low	NO	3	1	NO						70
63	AJITH	23	M	unmarı	MBA	STUDENT	HINDU	MIDD	NO	2	1	NO						80
64	PRIYA	19	F	unmarı	12	STUDENT	HINDU	low	yes	1	2	YES	yes-9					60
65	CHANDRA	20	F	unmarı	BSC	STUDENT	HINDU	MIDD	NO	4	3	YES		yes-8				60
66	HEMALATHA	33	F	MARRI	10	HOUSEWIFE	HINDU	low	NO	5	4	YES					yes-8	60
67	THOMPSON	29	M	unmarı	BA HIST	UNEMPLOYE	CHRISTIA	low	yes	3	1	YES			yes-14			50

68	PRIYANKA	25	F	unmarı	12	WEAVER	HINDU	low	NO	3	2	NO					70
69	SUMATHI	29	F	MARRI	12	HOUSEWIFE	HINDU	low	NO	2	2	NO					80
70	DILIKUMAR	33	M	MARRI	9	COOLEY	HINDU	low	NO	3	2	yes			yes-10		60
71	SELVI	35	F	MARRI	12	HOUSEWIFE	HINDU	low	NO	2	2	NO					80
72	BALACHANDRA	42	M	MARRI	8	COOLEY	HINDU	low	NO	1	1	YES			yes-10		60
73	ANBU RANI	35	F	MARRI	6	HOUSEWIFE	HINDU	low	NO	4	2	NO					80
74	VELANKANNI	39	F	MARRI	10	HOUSEWIFE	HINDU	low	NO	1	3	yes		yes=9			60
75	RUTH	21	F	MARRI	8	HOUSEWIFE	CHRISTIA	low	NO	2	4	NO					80
76	SAMBA	24	F	MARRI	12	HELPER	HINDU	low	NO	3	5	YES	yes-11				50
77	KOKILA	38	F	MARRI	8	HOUSEWIFE	HINDU	low	NO	4	3	YES			yes-10		60
78	MARY	21	F	unmarı	BSC	STUDENT	CHRISTIA	MIDD	NO	2	3	YES			yes-14		60
79	PANDIYARAJAN	21	M	MARRI	10	AUTODRIVEI	HINDU	low	NO	1	3	YES	yes-10				60
80	VEERAN	26	M	unmarı	12	SHOPKEEPEI	HINDU	low	YES	3	2	yes			yes-10		70
81	ABDUL KHADAF	39	M	MARRI	7	MUTTON SH	MUSLIM	low	NO	2	2	NO					80
82	SALAMON	36	M	MARRI	5	COOLEY	CHRISTIA	low	NO	1	2	NO					60
83	MUTHU	29	F	MARRI	8	HOUSEWIFE	HINDU	low	NO	3	2	YES				yes-15	50
84	RAJAKALA	21	F	unmarı	12	TAILOR	HINDU	low	yes	4	1	YES				yes-16	60
85	SUNDARI	49	F	MARRI	4	HOUSEWIFE	HINDU	low	NO	2	1	YES			yes-13		60
86	VASTHALA	37	F	MARRI	8	TAILOR	HINDU	low	NO	2	1	YES			yes-12		60
87	SUBULAKSHMI	35	F	MARRI	6	HOUSEWIFE	HINDU	low	NO	1	1	NO					80
88	KASTHURI	49	F	MARRI	9	HOUSEWIFE	HINDU	low	NO	1	2	NO					70
89	ROJA	36	F	MARRI	6	HOUSEWIFE	HINDU	low	NO	1	3	YES				yes-15	60
90	RAJAM	27	F	MARRI	5	COOK	HINDU	low	NO	2	3	NO					70
91	RATHI	23	F	MARRI	7	HELPER	HINDU	low	NO	3	2	NO					80
92	BAKIYAM	43	F	MARRI	9	HOUSEWIFE	HINDU	low	yes	2	1	YES			yes-10		60
93	HARI	21	M	unmarı	12	painter	HINDU	low	NO	1	2	YES			yes-13		70
94	SINDHUJA	24	F	unmarı	6	FLOWER VEI	HINDU	low	yes	2	3	YES			yes-15		50
95	SHANTHI DEVI	46	F	MARRI	5	TAILOR	HINDU	low	NO	1	4	YES				yes-16	60
96	LOGANATHAN	50	M	MARRI	4	COOLEY	HINDU	low	NO	1	2	NO					80
97	PANDI	41	M	MARRI	9	ELECTRICIAI	HINDU	low	NO	1	1	YES				yes-17	50
98	KUTTY	24	M	MARRI	10	CARPENTER	HINDU	low	NO	2	1	YES				yes-15	60
99	VIJI	40	F	MARRI	7	HOUSEWIFE	HINDU	low	NO	3	1	NO					70
100	VINODHA RANI	29	F	MARRI	10	TAILOR	HINDU	low	NO	4	1	YES			yes-12	yes-9	50

AGE OF ON	DURATIO	NO.OF.	PSYCHOTIC	EPIS	AGGRESSION	SUICIDES	NO.OF. AT	MEDICATIONS-	ECT US	SUBSTANCE	AUDIT	AUDIT- DEPENDENCE SCORE
18	11	4	yes		yes	yes	1	mood stabilise	3	alcohol	7	3
32	5	4	YES		YES	NO		MOOD stabilis	NO	alcohol	5	4
28	10	4	YES		YES	NO		MOOD stabilis	no			
40	2	2	NO		YES	NO		MOOD Stablise	no	alcohol	9	3
18	8	5	NO		YES	YES	3	MOOD stabilis	NO			
19	17	15	YES		YES	YES	3	MOOD Stablise	2			
30	13	6	YES		NO	NO		ANTIPSYCHOTI	NO			
18	10	6	YES		YES	YES	1	MOODSTABILIS	NO			
16	8	2	YES		YES	YES	1	MOODSTABILIS	NO			
30	7	6	YES		YES	NO		MOODSTABILIS	NO	alcohol	7	4
15	23	15	YES		YES	YES	5	moodstABILISE	3			
28	15	3	YES		YES	NO		MOODSTABILIS	NO			
14	16	9	YES		YES	YES	1	MOODSTABILIS	1			
20	29	13	YES		YES	NO		MOODSTABILIS	NO	alcohol	3	4
25	20	10	YES		YES	NO		MOODSTABILIS	NO			
18	6	5	NO		YES	NO		moodstABILISE	1			
28	10	3	YES		YES	NO		MOODSTABILIS	NO			
20	10	5	YES		YES	YES	1	MOODSTABILIS	NO			
35	14	6	YES		YES	YES	1	MOODSTABILIS	1	alcohol	2	4
35	15	4	YES		YES	YES	2	MOODSTABILIS	NO			
25	2	2	YES		YES	YES	1	MOODSTABILIS	NO			
16	4	3	YES		YES	YES	2	MOODSTABILIS	NO			
24	8	3	YES		YES	NO		MOODSTABILIS	NO			
15	20	5	YES		YES	YES	2	MOODSTABILIS	2			
30	7	5	YES		YES	NO		MOODSTABILIS	NO			
26	7	6	YES		YES	YES	1	MOODSTABILIS	NO			
23	25	11	YES		YES	YES	4	MOODSTABILIS	3	alcohol	5	3
37	11	3	YES		YES	NO		MOODSTABILIS	NO	alcohol	5	4
25	13	3	yes		yes	no		MOODSTABILIS	no	alcohol	6	4
16	8	5	yes		yes	yes	1	MOODSTABILIS	1			
30	5	1	yes		yes	no		ANTIPSYCHOTI	no			
15	5	3	yes		yes	yes	2	MOODSTABILIS	1			
18	1	1	yes		no	no		ANTIPSYCHOTI	no			

30	12	7	yes	yes	yes	1	MOODSTABILIS	1			
32	8	1	yes	no	no		ANTIPSYCHOTI	no			
35	8	2	yes	yes	no		MOODSTABILIS	no			
17	6	3	yes	yes	yes	1	moodstABILISE	no			
30	10	1	yes	yes	no		no drugs	no			
24	3	2	yes	yes	no		MOODSTABILIS	no			
16	20	6	yes	yes	yes	2	MOODSTABILIS	no			
20	6	4	yes	yes	yes	1	MOODSTABILIS	no			
19	10	6	yes	yes	yes	2	moodstABILISE	no			
30	11	4	yes	yes	yes	1	MOODSTABILIS	1			
28	11	6	yes	yes	yes	1	MOODSTABILIS	no	alcohol	5	4
31	4	2	yes	yes	no		MOODSTABILIS	no			
20	8	5	yes	yes	yes	2	MOODSTABILIS	no	alcohol	4	4
29	2	1	yes	yes	no		ANTIPSYCHOTI	no			
17	7	4	yes	yes	yes	2	MOODSTABILIS	no			
24	5	1	yes	yes	no		ANTIPSYCHOTI	no			
24	2	1	yes	yes	no		MOODSTABILIS	no			
33	16	3	yes	yes	yes	1	MOODSTABILIS	no			
23	5	2	yes	yes	no		MOODSTABILIS	no			
21	9	2	yes	yes	no		ANTIPSYCHOTI	no			
30	9	5	yes	yes	yes	2	MOODSTABILIS	no			
27	5	2	yes	yes	no		MOODSTABILIS	no			
24	6	2	yes	yes	NO		MOODSTABILIS	no			
19	8	2	yes	yes	no		ANTIPSYCHOTI	no			
23	20	11	yes	yes	yes	3	moodstABILISE	1			
24	6	2	yes	yes	yes	1	MOODSTABILIS	no			
20	8	3	yes	yes	yes	1	MOODSTABILIS	no	alcohol	5	4
23	6	4	yes	yes	yes	1	MOODSTABILIS	1			
25	2	1	yes	yes	no		MOODSTABILIS	no			
19	4	1	yes	yes	no		MOODSTABILIS	no	alcohol	4	4
16	3	1	yes	yes	no		MOODSTABILIS	no			
19	1	1	yes	no	yes	1	MOODSTABILIS	1			
20	13	5	yes	yes	yes	2	MOODSTABILIS	no			
16	13	7	yes	yes	yes	2	MOODSTABILIS	no			

21	4	2	yes	yes	no		MOODSTABILIS	no			
27	2	1	yes	no	no		MOODSTABILIS	no			
26	7	3	yes	yes	yes	1	MOODSTABILIS	no			
30	5	2	yes	yes	NO		MOODSTABILIS	NO			
30	12	5	yes	yes	yes	1	MOODSTABILIS	no	alcohol	5	4
32	3	1	yes	yes	no		MOODSTABILIS	no			
33	6	2	yes	yes	no		MOODSTABILIS	no			
19	2	1	yes	yes	no		MOODSTABILIS	no			
15	9	5	yes	yes	yes	2	MOODSTABILIS	no			
31	7	3	yes	yes	no		MOODSTABILIS	no			
18	3	1	yes	yes	NO		MOODSTABILIS	no			
16	5	2	yes	yes	yes	1	MOODSTABILIS	no			
22	4	2	yes	yes	NO		MOODSTABILIS	no	alcohol	7	3
34	5	2	yes	yes	no		MOODSTABILIS	no			
28	8	2	yes	yes	yes	1	MOODSTABILIS	no			
22	7	2	yes	yes	yes	2	moodstABILISE	no			
16	5	3	yes	yes	yes	1	MOODSTABILIS	no			
31	18	8	yes	yes	yes	3	MOODSTABILIS	2			
27	10	4	yes	yes	yes	1	MOODSTABILIS	no			
25	10	2	yes	yes	no		MOODSTABILIS	no			
35	14	3	yes	yes	no		ANTIPSYCHOTI	no			
31	5	3	yes	yes	yes	1	MOODSTABILIS	no			
25	2	1	yes	yes	yes	1	MOODSTABILIS	no			
18	5	1	yes	NO	NO		ANTIPSYCHOTI	no			
20	23	11	yes	yes	yes	2	MOODSTABILIS	3			
18	3	1	yes	yes	NO		MOODSTABILIS	no			
20	4	2	yes	yes	yes	1	MOODSTABILIS	no			
28	18	7	yes	yes	yes	4	MOODSTABILIS	3			
25	25	9	yes	yes	yes	3	MOODSTABILIS	3	alcohol	6	4
23	18	12	yes	yes	yes	5	MOODSTABILIS	3	alcohol	6	4
19	5	2	yes	yes	yes	1	MOODSTABILIS	no			
34	6	2	yes	yes	NO		MOODSTABILIS	no			
21	8	3	yes	yes	YES	1	moodstABILISE	no			

S.NO.	NAME	AGE	SEX	MAR	EDUCATI	OCCUPA	RELIGION	ECONO	CTQ	PHYS	PHYSIC	EMOT	EMOTIOI	SEXUA	AUDIT -	AUDIT-	DEPENDENCE SCORE
1	SWAMYNATHA	43	M	MAR	8	SECURIT	HINDU	low	yes			yes-10			7	4	
2	VEERANAN	41	M	MAR	8	HELPER	HINDU	low							5	4	
3	MUTHUMARI	49	M	MAR	5	COOLEY	HINDU	low							3	4	
4	RAGAVENDRA	49	M	MAR	7	COOLEY	HINDU	low							2	4	
5	MOHANDASS	48	M	MAR	8	SECURIT	HINDU	low									
6	ARUMUGAM	47	M	MAR	7	unempol	HINDU	low									
7	JAGADEESAN	46	M	MAR	7	COOLEY	HINDU	low							4	3	
8	RAJAGOPAL	45	M	MAR	5	unempol	HINDU	low							5	4	
9	RAJA	29	M	UNM	10	PAINTER	HINDU	low	yes	yes-8					6	4	
10	SHANTHANAR/	27	M	MAR	12	MECHAN	HINDU	low							7	4	
11	SUBBURAJ	35	M	MAR	8	DRIVER	HINDU	low	yes			yes-10			4	4	
12	RAMDOSS	38	M	MAR	10	unempol	HINDU	low							6	4	
13	NAGARAJ	39	M	MAR	7	COOK	HINDU	low									
14	SELVAM	34	M	MAR	10	DRIVER	HINDU	low									
15	MOIDEEN	37	m	MAR	8	muttons	MUSLIM	low							7	4	
16	RAMESH	28	M	UNM	10	COURIEF	HINDU	low	yes					yes-8			
17	DURAI	40	M	MAR	8	COOLEY	HINDU	low							7	4	
18	CHIDAMBARAI	39	M	MAR	9	COOLEY	HINDU	low									
19	RAJESH	24	M	UNM	12	unempol	HINDU	low									
20	KUMAR	27	M	UNM	9	unempol	HINDU										
21	JANSI	19	F	UNM	10	TAILOR	HINDU	low	yes	yes-10							
22	RANI	19	F	UNM	12	STUDEN	HINDU	low									
23	JULIANA	25	F	MAR	8	HOUSEW	CHRISTIA	low	yes			yes-13					
24	RUKKUMANI	24	f	MAR	6	HOUSEW	HINDU	low									
25	RAMALAKSHM	28	f	MAR	6	HOUSEW	HINDU	low									
26	SHOBANA	23	F	UNM	4	FLOWER	HINDU	low	yes			yes-11					
27	SHIBA	21	F	UNM	BA	STUDEN	CHRISTIA	MIDDL	yes			yes-12					
28	VIDHYA	23	F	MAR	5	COOK	HINDU	low									
29	RITA MARY	20	F	MAR	6	HOUSEW	CHRISTIA	low									
30	LAVANYA	22	F	UNM	10	HELPER	HINDU	low									
31	NIVEDHA	23	F	MAR	12	OA	HINDU	low									
32	PRATHIBA	25	F	UNM	10	TAILOR	HINDU	low	yes				yes-15				
33	POOJA	25	F	UNM	DCE	unempol	HINDU	MIDDLE									

34	SHRUJANA	24	F	MAR	BA	STUDEN	HINDU	MIDDLE							
35	LAKSHMIPRIYA	27	f	MAR	12	OA	HINDU	low							
36	JEYARANI	28	F	UNM	8	unempl	HINDU	low	yes			yes-16			
37	CHANDRA	30	F	MAR	10	HOUSEV	HINDU	low							
38	MALA	26	F	MAR	5	HOUSEV	HINDU	low							
39	ANANDHI	28	F	MAR	10	HOUSEV	HINDU	low							
40	ESTHER	23	F	UNM	10	COOK	CHRISTIA	low							
41	SARANYA	28	F	MAR	6	HOUSEV	HINDU	low	yes				yes-8		
42	SELVI	25	F	MAR	4	COOK	HINDU	low							
43	PONMALAR	29	F	MAR	8	HELPER	HINDU	low	yes			yes-15			
44	PONNI	40	F	MAR	8	HOUSEV	HINDU	low	yes	yes-8					
45	VIJAYALAKSHM	38	F	MAR	5	HOUSEV	HINDU	low	yes		yes-15				
46	PRABAVATHY	39	F	MAR	10	TAILOR	HINDU	low							
47	SHANTHI	36	F	MAR	6	HOUSEV	HINDU	low							
48	RAMUTHAI	38	F	MAR	9	HOUSEV	HINDU	low							
49	KRISHNAVENI	35	F	MAR	9	HOUSEV	HINDU	low	yes			yes-15			
50	SUMATHI	36	F	MAR	6	HOUSEV	HINDU	low							
51	VASUKI	40	F	MAR	7	COOLEY	HINDU	low							
52	VASANTHI	34	F	MAR	3	HOUSEV	HINDU	low							
53	SEETHALAKSHI	33	F	MAR	8	HOUSEV	HINDU	low	yes	yes-8					
54	RENGANAYAKI	36	F	MAR	8	HOUSEV	HINDU	low							
55	POUNN	35	F	MAR	10	HOUSEV	HINDU	low							
56	BANUMATHY	36	F	MAR	8	HOUSEV	HINDU	low							
57	JEYALAKSHMI	45	F	MAR	8	TAILOR	HINDU	low							
58	JEYANTHI	42	F	MAR	5	HOUSEV	HINDU	low							
59	kannammal	50	F	MAR	7	HOUSEV	HINDU	low	yes			yes-10			
60	SUGUNA	49	F	MAR	5	HOUSEV	HINDU	low							
61	PADMAVATHY	43	F	MAR	8	HOUSEV	HINDU	low							
62	VIMALA	25	F	MAR	7	HOUSEV	HINDU	low							
63	KANNMANI	26	F	UNM	8	HELPER	HINDU	low							
64	KAVITHA	44	F	MAR	8	HOUSEV	HINDU	low							
65	PONNAMMAL	43	F	MAR	6	HOUSEV	HINDU	low							
66	VALARMATHY	42	F	MAR	8	HOUSEV	HINDU	low	yes		yes-9				
67	PARAMESHWA	40	F	MAR	9	HOUSEV	HINDU	low							
68	SAILA BANU	48	F	MAR	5	HOUSEV	MUSLIM	low							
69	RADHAKRISHN	42	M	MAR	5	LORRY C	HINDU	low							
70	NAGAMANI	23	M	MAR	7	COOLEY	HINDU	low							
71	SERMARAJAN	35	M	MAR	9	TASMAC	HINDU	low							
72	GNANAPRAKAS	21	M	UNM	BBA	STUDEN	HINDU	MIDDLE							
73	SAMUEL	19	m	UNM	10	unempl	CHRISTIA	low							
74	DINESH	20	M	MAR	11	HELPER	HINDU	low							
75	ANANDH	21	M	UNM	8	AUTODR	HINDU	low							
76	SENTHIL	25	M	MAR	8	SHOP HE	HINDU	low							
77	KRISHNASWAN	29	M	UNM	12	OA	HINDU	low							
78	RATHINAM	42	M	MAR	6	COOLEY	HINDU	low	yes		yes-8				
79	MARIKANNU	50	M	MAR	5	COOLEY	HINDU	low						5	4
80	JOHNSON	31	m	UNM	BA	unempl	CHRISTIA	low	yes			yes-15			
81	PADMANATHA	44	M	MAR	9	ELECTRI	HINDU	low						7	4
82	BOOPATHY	33	M	UNM	7	COOLEY	HINDU	low							
83	RAGAVAN	29	M	UNM	10	SERVER-	HINDU	low						6	4
84	SUNDAR	30	M	MAR	MSC	PRIVATE	HINDU	MIDDLE							
85	NAGARAJAN	25	M	UNM	8	HELPER	HINDU	low						7	4
86	MARIAPPAN	28	M	MAR	8	HELPER	HINDU	low							
87	VASANTHAN	27	M	MAR	10	HELPER	HINDU	low							
88	ADHAVAN	30	M	MAR	3	MILK MA	HINDU	low							
89	ZAHIR	43	M	MAR	9	HELPER	HINDU	low							
90	PREMKUMAR	34	M	MAR	12	SECURIT	HINDU	low							
91	MUKESH	20	M	UNM	BBA	STUDEN	HINDU	MIDDLE							
92	THANGAVEL	40	M	MAR	BA	OA	HINDU	MIDDLE							
93	MAHESHWARA	29	M	MAR	8	BEAUTY	HINDU	low							
94	JAMES ASIRVA	39	M	MAR	8	HELPER	HINDU	low						7	4
95	MITHUN	28	M	UNM	10	unempl	HINDU	low						7	4
96	BALAJI	32	M	MAR	8	AUTODR	HINDU	low							
97	JEYAPRAKASH	26	M	UNM	9	unempl	HINDU	low							
98	SRINIVASAN	36	M	MAR	4	CARPEN	HINDU	low							
99	IBRAHIM	40	M	MAR	6	SECURIT	HINDU	low							
100	KANNAYAN	39	M	MAR	7	COOLEY	HINDU	low							