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NEURO-FORENSIC PSYCHOLOGY IN BORDERLINE PERSONALITY DISORDER

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Abstract-

Objective: Understanding the psychological, neurobiological & genetic factors underlying BPD and the role of a Forensic Psychology professional in handling a BPD-client.

Background: Borderline personality disorder (BPD) is characterized by unusual variability and depth of mood, affecting cognition and interpersonal relationships. This disorder is only recognized by the Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (Text Revision) (DSM-IV-TR).

Findings: Although there is no specific cause for BPD, it is understood to be the result of a combination of biological vulnerabilities, ways of thinking, and social factors (biopsychosocial model). Cortisol production has been found elevated in the BPD-individuals, indicating a hyperactive Hypothalamic-Pituitary-Adrenal axis in them. This area of the brain does emotion regulation and integration of thoughts. Neurotransmitters including serotonin and dopamine have been implicated in the regulation of impulses and aggression and their effects have role a significant role in the development of BPD. The identification and recognition of susceptibility genes (like COMT) and the genetic polymorphisms in psychiatric diseases may help to identify individuals at risk, in order to establish an appropriate preventive approach against BPD. People experiencing traumatic life events in childhood are at increased risk of developing BPD. Psychotherapy approaches like dialectical behavior therapy and psychoanalytic psychotherapy is found to be helpful in treating BPD.

Forensic criminal evaluations should consider the broad context of symptoms and behavior since it provides essential diagnostic information and key in diagnosing the presence of latent character disorders as seen in antisocial, narcissistic or borderline personality.

Conclusion: Forensic psychology professionals while handling persons with BPD and related traits should be educated with personal and professional behavior of clients.

Keywords- Borderline personality disorder, Neurobiology, Forensics, Psychology, Polymorphism, Neurotransmitters, Amygdala, Prefrontal cortex, Serotonin, Dopamine

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Background

Borderline Personality Disorder (BPD) is a serious mental illness and often misunderstood because of its symptoms and characterized by pervasive non-stable moods, personal and interpersonal relationships, self image and behavior [1]. It is a disorder of emotional non-directive condition in which clients have been characterized by long-term patterns of unstable or turbulent emotions, such as unusual feelings about themselves and others [1]. These inner experiences often cause them to take impulsive actions and have chaotic relationships [2]. This instability often disrupts relationships in family and work settings and interrupts long-term planning and the individual's sense of self-identity [2]. The exact causes of BPD are still unknown. A combination of genetic, family, and social factors are thought to play roles [2].

Emotionally unstable (borderline) personality disorder is distinguished by a definite tendency to act impulsively and without any consideration of the consequences; the mood is very much unexpected and capricious [3]. There is a liability to outbursts of emotion and incapacity to control the behavioral explosions [3]. There is a tendency of clashing behavior and to quarrels with others, especially when impulsive acts are thwarted or repressed [3]. Two types may be distinguished: the reckless type, recognized predominantly

by emotional instability and lack of impulse to control, and its borderline style, characterized in addition by disturbances in self-image, fulfilling aims with internal preferences, by never-ending feelings of emptiness, by intensely strong and unstable interpersonal relationships, and by an inclination towards self-destructive behavior and suicide [4,5].

The disorder, characterized by powerful emotions, self-harming and suicidal acts and turbulent interpersonal relationships, was officially identified and given the name Borderline Personality Disorder in 1980 [1]. It was thought to occur on the border between psychotic and neurotic behavior. This is no longer considered a significant analysis and the term itself, with its stigmatizing negative involvements, has made the analysis of BPD a problematic issue. The complexity symptoms of the disorder often make patients difficult to get treatment and therefore may evoke feelings of annoyance and frustration in professionals & therapists that they are usually unwilling to treat persons having such symptoms. This problematic behavior has been aggravated because of the lack of appropriate insurance coverage for the extended psychosocial treatments that BPD usually requires [6-8]. Nevertheless, there has been much advancement and significant achievement in the past 25 years in the understanding of and specialized treatment & therapies for BPD. It is, in fact, a proper diagnosis by a therapist that has a lot of hope for recovery and behavior mending. Individuals with BPD have extreme but unstable close relationships, which swap between extremes of idealization and non-appraisal. They often make hysterical efforts to avoid real or imagined rejection [1,8].

Common Risk factors for BPD [7,8] includes:

- Abandoned as child or in adolescence
- Disrupted family life / love life
- Poor communication in the family
- Sexual abuse
- Loneliness

Borderline Personality Disorder

DSM-5 Investigative Criteria, American Psychiatric Association Any individual with established with borderline personality disorder needs to show at least 5 of the following criteria [9]:

- Frantic efforts to avoid real or imagined abandonment [9]. (Note: Do not include suicidal or self-mutilating behavior covered in 5th point.)
- A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
- Identity disturbance: markedly and persistently unstable self-image or sense of self.
- Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, Substance Abuse, uncontrolled driving, splurge eating). (Note: Do not include suicidal or self-mutilating behavior covered in 5th point).
- Recurrent suicidal actions, gesticulations, or threats, or self-damaging behavior.
- Affective instability due to a marked reactivity of mood (e.g., intense periodic dysphoria, tetchiness, or fretfulness usually lasting a few hours and only rarely more than a few days).
- Chronic Feelings of Emptiness
- Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of anger and repeated physical fights).
- Transient, stress-related paranoid ideation or severe dissociative symptoms.

Adults with BPD have highly fluctuating moods accompanied by intense anger [1, 10]. Characteristically, these intense emotional episodes last only a few hours and only exceptionally more than a few days. The individual frequently goes from one emotional crisis to another. Self harm, repeated and impulsive suicidal attempts are usually seen in the severely ill. This behavior represents an extreme and significant deviation from the way in which a normal individual in a given culture relates to others. This behaviour pattern tends to be constant. This behavior causes subjective anguish and hindrance in social performance [1,10,11].

As personality disorder, BPD is significantly different from bipolar I disorder. The mood swings as seen in BPD rarely lasts for more than a day but mood swings in bipolar I disorder last much longer. BPD never exhibits the lengthened episodes of decreased sleep, hyperactivity, stressed speech, inattentive over-involvement, and elaborateness but they are best known characteristics of bipolar I disorder [1,10,11].

Usually more females are diagnosed with BPD than males by a ratio of about 3:1, but some clinicians feel that most males go undiagnosed [1,10,11].

BPD rarely stands alone. There is high rate of association /co-occurrence with several other personality & mental disorders [1,10,11]. There is a strong relationship between child abuse (especially child sexual abuse) and development of BPD (& other personality disorders). Many individuals with BPD have reported a history of physical & sexual abuse and neglect as young children. Case histories of patients with BPD considerably reported of having been verbally, emotionally, physically or victim of incest, loss of caregivers or being sexually abused by them of either gender as young children. Case histories also report that caregivers have failed to provide required protection, have abandoned their child's physical, were emotionally withdrawn from their child and/or have treated their child inconsistently [12,13].

Co-occurring Disorders

Borderline Personality Disorder is rarely diagnosed alone. BPD occurs and complicates with other disorders [1,10,11].

Co-morbidity with Other Disorders [Table-1]

Table 1- Co-morbidity with Other Disorders

Disorders	%
Major Depressive Disorder	60%
Dysthymia (chronic, moderate to mild depression)	70%
Eating Disorders	25%
Substance Abuse	35%
Bipolar Disorder	15%
Antisocial Personality Disorder	25%
Narcissistic Personality Disorder	25%

Effective Therapies

A number of psychological treatments are partially effective for borderline personality disorder, but all lack robust evidence of their effectiveness [1,10,11].

Pharmacotherapy

Pharmacotherapy can exert a diffident beneficial effect on some

core cases of BPD. In several BPD cases, medications have shown to bring great relief by reducing the severity of indications and thus enabling effective psychotherapy can follow. Medications are often essential in the proper management of disorders that commonly co-occur with BPD. There are an increasing number of psychotherapeutic approaches developed specifically for patients with BPD [14].

Psychotherapy

Psychotherapy is the basis of most successful treatments for BPD. Development of a safe connection with the therapist is most essential for the psychotherapy to have useful consequences. Although, this may not occur with the BPD diagnosed individuals, since therapists fear the intense needs and fears about relationships. The standard requirement for individual psychotherapy generally involves one to two visits a week with an experienced clinician. Therapy can be given one-on-one between the therapist and the client or in a group setting. Therapist-led group sessions teach patients with BPD to interact with others and to express them effectively. Therapists may, at their ease, switch from one type of therapy to other; merge techniques from different therapies, or use of a combination of therapies.

Psychotherapies used to treat BPD include the following:

Cognitive Behavioral Therapy (CBT)

CBT might help people suffering from BPD to identify and change their core beliefs and/or behaviors that underlie imperfect perceptions of themselves and others and difficulty in interacting with others. CBT might help patients to reduce a range of mood and anxiety fluctuations and reduce the number of suicidal or self-harming behaviors.

Dialectical behavior therapy (DBT)

Dialectical behavioral therapy (DBT) is a relatively recent therapy developed by Dr. Marsha Linehan. Present date, DBT is the best-studied intervention for BPD. This type of therapy uses the concept of mindfulness, or being alert of and conscientious to the current state. DBT educates techniques to control deep emotions, lessens self-damaging behaviors, and improves social interactions. This psychotherapy is at variance from CBT in that it seeks for a balance between changing and admitting beliefs and behaviors [15].

Schema-focused Therapy

This of therapy combines CBT with other types of psychotherapy that focus on altering outlines or the means the individual's outlook themselves. This method is built on the knowledge that BPD stems from a non-purposeful self-image-possibly brought on by depressing childhood experiences-that affects how people react to their environment, interaction with others, and to cope up with problems or stress.

Other therapies, such as *Family Therapy*, focus on the needs of family members of the BPD diagnosed people. More research is needed to establish the effectiveness of family therapy in BPD. Studies, as per with other mental disorders recommends that including family members can help in a person's disorder management. Parents, spouse and children bear a significant burden. Often, family members feel grateful to be instructed about BPD diagnosis, the likely prognosis, reasonable outcome from treatment, and how they can help to bring about the change. These involvements often lead to effective communication, diminish alienation, and relieve family burdens. Presently, preliminary research data is available to suggest that family involvement is very important in the effective treatment of BPD.

Ineffective Therapies

Vitamin therapy, nutritional supplements, and special diets are all ineffective in the treatment of BPD & other personality disorders.

Neurobiology in BPD

Methodologies which are in common practice in behavioral genetics, like the twin and family studies, stand to gain further support in research in BPD. That is, the key to recognize behavior consists of understanding the root cause of such behavior at the gene/ environment interface and brain [16,17].

As per the literature, three types of neurological theories are recommended and supported with varying degrees of evidence in BPD:

- Abnormal amygdale functioning,
- Abnormal frontal/prefrontal brain functioning
- Reduced serotonergic functioning

Abnormal Amygdale Functioning

Brain Abnormalities

Hippocampus

Studies suggest people with BPD have smaller hippocampus and amygdala and this trait is shared by individuals with post-traumatic stress disorder [16].

Amygdala

People with BPD have smaller but more active amygdala as evidenced by research and same decreased amygdala volume is noted in people suffering from obsessive-compulsive disorder [17,18]. One study on BPD clients has noticed unusually strong activity in the left amygdala when they experience negative emotions [18-20].

Amygdala is a major structure involved in generating negative emotions and this explains the unusual potency and endurance of fear, grief, anger, and disgrace in individuals with BPD, as well as their intensified kindliness to displays of these emotions in others [21-23]. Study by Schneider, et al [24] established role of the amygdala in regulating negative emotions. Additionally subcortical pathways process emotional responses from major visual input and the cortical pathways of the amygdala assign meaning to emotional provocations, or allow for the emotions undergone in full consciousness [25,26]. When analyzed with functional magnetic resonance imaging (fMRI) BPD subjects show more intense bilateral amygdala activation against a control group. Oversensitization to aversive emotional stimuli is represented by hypersensitivity of the amygdala to emotional stimuli [27-29], and a projection of negative emotions onto expressively neutral slides that did not draw a threat reactions from control groups [29].

In a study on the amygdala and borderline emotional dysregulation, mental health researchers explored that BPD subjects experienced significantly greater activation in the left amygdala as compared with normal control subjects under same condition in as seen by emotional facial expressions (activation in the right amygdala was not substantial), and that they recurrently consigned negative emotions to neutral faces [30-32]. A suggested distinction between the right amygdala with the left is in recognition of threat in which fear reactions are recognized left of the medial division [33]. Contributions of negative intentions/emotions to neutral faces shows higher sensitivity to threatening circumstances, which suggests lower fear/ anxiety thresholds in BPD subjects, and therefore abnormal amyg-

dala functioning [32]. These results support significantly smaller (8%) volumes of the amygdala in BPD clients in response to controls [34,35], with primary loss in the left amygdala [36].

Regardless of all of these findings, amygdala hypersensitivity is not an exclusive feature to BPD subjects, and instead is a brand of other psychiatric disorders, like post-traumatic stress disorder [37]. Hence, although activation of the amygdala on the levels seen in examined BPD females may be characteristic of attribute emotional dysfunction, that are not limited to BPD, and do not provide an exceptional etiology for that dimension of BPD outside of habituated stress responses due to environmental factors, such as traumatic life experiences [28]. The amygdale is one of the best studied regions in behavioral neurobiology [38], cannot alone serve as the cause of BPD trait, no matter how well subjects are screened. At the end of the day, it seems that pure BPD samples are extremely rare, and co-morbidity/co-occurrence with other Axis I/II disorders is to be expected [39], which tends to skew measured amygdala responses. The use of amygdala theory to explain BPD is only useful with support of other theories.

Abnormal Frontal/Prefrontal Brain Functioning

Prefrontal Cortex

The biological basis of borderline personality questions the role of the front and prefrontal regions of the brain. The prefrontal cortex is seen to be less active in people diagnosed with BPD, especially when recalling memories of abandonment. Citing its role in controlling emotional stimulation, the relative inoperativeness of the prefrontal cortex usually explains the difficulties people with BPD experience in regulating their emotions and responses to stress. Brain trauma noted in a majority of BPD subjects indicates the necessarily for examining additional modes of thinking about the disorder's etiology and distinguish cases based on their underlying pathways in the brain and their approximate etiologies along the lines of neural dysfunction [40-42].

Based on imaging studies conducted with positron emission tomography (PET), researchers have seen prefrontal dysfunction in BPD subjects [40]. These results were inferred to specify a significant glucose hyper-metabolism in the anterior cingulate, in the superior frontal gyrus, in the right inferior frontal gyrus, and in the precentral gyrus. The anterior cingulate is known to function in the affective component of pain, and the hyperactivity as seen from the imaging studies accounts for reduced sensitivity to pain in BPD trait. Also, a significant level of hypo-metabolism was seen in the limbic system, which suggests a possible hippocampal, stress-induced toxicity, such as that seen in BPD subjects with a history of childhood sexual and physical abuse. Abnormal hippocampal functioning supports the theory that abnormal amygdala activity is a responsible for some characteristics of BPD, and, in addition, seems to lend support to the notion that BPD subjects lead an early stressful life events as factors in impaired limbic system function [43].

Hypothalamic-pituitary-adrenal Axis

Cortisol production is adjusted by the hypothalamic-pituitary-adrenal axis (HPA axis), which is released in response to stress. Cortisol production is raised in individuals with BPD, signifying a hyperactive HPA axis in these individuals thus causing them to experience a greater biological stress response, which might explain their greater helplessness to irritability. Since traumatic events can also increase cortisol production and HPA axis activity, this unusual activity in the HPA axis of BPD clients may be related to the painful childhood and maturational events that associate with this condition. Contrary, by heightening their sensitivity to strainful events, increased cortisol production may influence those with BPD to experience stressful childhood and maturational events as traumatic [44, 45].

Estrogen

Expression of BPD symptoms in female subjects may be related to their individual differences estrogen cycles. A 2003 study found that BPD symptoms in women were predicted by changes in estrogen levels throughout their menstrual cycles, and this effect remained significant when the results were controlled for a normal increase in negative symptoms.

Symptoms experienced due to abnormal levels of estrogen are often misdiagnosed as BPD, like extreme mood swings and depression. Hormone-responsive mood disorders also known as reproductive depression are seen to stop after menopause or hysterectomy. Psychotic episodes treated with estrogen in BPD women subjects show significant improvement but this must not be prescribed to those with endometriosis as it worsens their endocrine condition. Mood stabilizing drugs used for bipolar disorder do not help women subjects with disturbed estrogen levels. A psychotherapist should make correct diagnosis& distinction between endocrine disorder and psychiatric disorder [46,47].

Research suggests that in female subjects diagnosed with (BPD) the catechol o-methyltransferase (COMT) val(158)met polymorphism modulates the association of serious life events (SLE) and impulsive aggression. Also, increased cortisol production in female subjects is associated with suicidal behavior as seen in BPD [48, 49].

Reduced Serotonergic Functioning and the Role of Other Neurotransmitters

Research suggests BPD subjects have altered functioning of the neurotransmitter serotonin in their brain. This altered serotonin activity has been linked to depression, aggression and people find difficulty in controlling such subjects with destructive urges. One of the causes may be the promoter polymorphism in a serotonin transporter gene, indicating differential impulsiveness of the amygdala to emotional stimuli may result in fear and anxiety associated with the short SLC6A4 (serotonin transporter) allele [50-52]. Anxiety and fear are apparent in BPD through many of its more specific symptoms are avoidance of real or imagined abandonment and contribute to unstable relationships is a characteristic feature of BPD subjects. Apart from genetic studies, at the root of amygdala abnormality, postnatal developmental processes that are critical for launching emotional behavior and are influenced by serotonergic neurotransmission have been associated in differential responses of hyperactive amygdala [53]. Requirement of normal function is proper signaling by serotonin via forebrain 5-HT1A receptors during the early postnatal period, which implicates either a genetic or an environmental deficiency in serotonergic activity [54]. Evidence specifies early postnatal stressors add to risk exposure to anxiety and mood disorders in adulthood. These findings are sufficient to conclude why the amygdala may develop and function improperly in BPD individuals. Regardless of whether the change is environmental or genetic, each changes accounts for abnormal amygdala functioning and point to a reduced serotonergic system in the brain, which may provide a deeper insight of borderline behavior from a complex etiological and neurobiological perspective [52].

Study indicates gene-gene moderation in between the COMT Met

allele, which was noted to be overrepresented in BPD subjects as compared to healthy controls, and the 5-HTTLPR S allele for an effect on trait BPD [49]. Both of these genes link to the same kind of hyperactive amygdala responses previously identified and may enhance the susceptibility for BPD because of the development of a damaged regulation of aversive stimuli. Literature suggests that these genetic etiologies may be just mediators and not the direct causes. This implies that, the consideration of the 5-HTTLPR L/S, COMT Met, and other implication alleles may only be useful to the extent that they increase susceptibility to trait BPD when environmental& other etiological factors are present. These environmental factors are strong causes of that portion of the variance unaccounted for by estimates of heritability [49].

Also, dopaminergic polymorphisms [50,55], tryptophan-hydroxylase 2 haplotype [56] and variable number of tandem repeat polymorphisms of the arginine vasopressin receptor 1A gene [57] are found associated with borderline personality traits among at-risk young adults and psychiatric inpatients.

Forensic Psychology in BPD

When conducting forensic criminal evaluations in BPD, it is crucial to consider& study the broad context of symptoms and behavior over the course of time. This is essential since BPD characters presents latent character disorders as seen in antisocial, narcissistic or borderline personality. Borderline personality disorder usually mimics other characteristics of other disorders like posttraumatic stress disorder, mood disorders, depressive disorders, substance related problems. It is important to establish the onset of symptoms and when the symptoms occur in order to assist in identifying the disorder; because some individuals become self-damaging, unstable, unpredictable, and express strong emotion when under the effect of, or impending down from a mind altering substance [58-60].

"BPD tends to be co-morbid with many Axis I conditions, such as: mood complaints, substance associated disorders, eating disorders, PTSD, and ADHD, adding up tothe other personality disorders"[59].

A complete and thorough study of history and physical ailments can rule out some of these disorders. It is also suggested that persons with BPD have had a past history of childhood traumas &abuse; and many of the symptoms mimic Post Traumatic Stress Disorder (PTSD). The individual can show both characteristics, however, further assessment and evaluation is deserved [58,59].

Forensic professionals & psychologists should play a vital role in treatment& evaluation of the BPD & related issues. People who have witnessed and/or experienced violence as child should be provided with therapy not only to address grief and anger-related issues, but also to help them build adaptive coping strategies to prevent the perpetuation of the cycle of violence. Usually there are significant forensic history including substance abuse and related offending such as public disorder offences and violent offences. Clients may have or shown complaints of hearing voices or blackout's during times of extreme anger/anxiety although these need not have the quality of psychotic symptoms. Professionals should play a dynamic role in prevention or intervention programs that focus on problem solving, communication skills, conflict resolution skills & anger management skills [58,59].

Forensic psychologists may be called for parental rights termination consultation in cases where parents or caregivers are found not taking proper & complete responsibility of their child. Psychologists are frequently advised to conduct assessments and provide testimony in such hearings. Expert professionals are often presented by all parties involved in such cases [60-62].

BPD subjects may be hostile and nihilistic to professionals due to the frequent visits. Threats of self-harm/actual self-harm or attendance following violent episodes or quasi-psychosis may prove challenges to professionals. A BPD client may be continuously suicidal for months or years. Statements that the person wishes to die mayor may not be believed. The turmoil that characterizes BPD, makes therapist's task challenging. Above all, many of the same problems that patients have with other people & society arise in their relationships with helping professionals, the therapists [60, 61, 62].

Case Study

Case study done by co-author of the paper, Ms. Sushma. N at Karnataka, India.

Socio Demograpic Data

Name: S [kept confidential]

Sex: Female

Address: Karnataka, India

Age: 23 years

Education: (B.Sc.)

Marital status: Single

Information Gathered from

From Self

From Mother : Client stays with mother from birth

Presenting Complaints

Symptoms presenting since 6 years:

- Displays tantrum, intense rage and anger in reaction to petty matters which seems highly inappropriate and out of proportion.
- Indulges in over-eating and excessive sleeping
- Feels very lonely, dejected, not taken care of and reports severe feeling of 'emptiness'
- Resents to be alone, seeks out new relationships which is highly unstable and short lived
- Has frequent mood changes throughout the day. Gets irritated easily and tensed
- Highly abusive and frequently involves in fights, bullying and ragging
- Has several scratches on the arm and shoulder inflicted with sharp objects
- Threatens suicide by cutting forearm with razor and safety pin

History of Presenting Illness (HOPI)

Ms. S's symptom began when she was around 17 years of age. Several behavioral problems began manifesting. S started displaying intense rage and anger over petty issues which didn't require such reaction. She indulged in binge eating and excessive sleeping. She reported feelings of emptiness, dejection, persistently complaining that no one understood her or cared for her. She was very demanding in relationships, felt 'no one can be trusted and every one lets you down'. She started seeking out for new, stable relationships outside (As new friends and partner) stating that she is grown up and resents to be alone. She frequently hopped from one rela-

tion to other seeking security and stability. All these new relationships were short lived and unstable. S's mood change was frequent throughout the day; she was easily irritated and anxious.

She began throwing tantrums and at times was highly abusive. Because of this she started having problems in adjustment with college mates, friends and got frequent complaints from college authorities and neighbors. S got involved in bullying and ragging in college for which she had to face legal consequences. She discontinued her college education. Her mother found out that S has several scratches over her arm and shoulders which she has hidden, when asked S said she scratched with sharp objects like razor and scissors and it felt relieving to do that. Threatened suicide by cutting her forearm with razor and safety pins several times which was followed by hospitalization. Her frequent hospitalization owing to suicidal threats resulted in her unusual attachment with male hospital staff. She often refused discharge by threatening suicide.

Criminal Behavior

S has indulged in frequent clashes with classmates and friends which sometimes go to the extent of physical fights. She is highly abusive. S's involvement in bullying and ragging the classmate has resulted in victim's report to college authority and police. S was suspended from the college and she had to face legal consequence as result of police complaint.

Past History

S's childhood was uneventful. She had no major health problems. S was a very sensitive kid and couldn't mingle easily with others. She had a small circle of close friends in her childhood. When she was 12, she lost her father to heart attack. S was average in her studies. Her interest in studies was good and she enthusiastically participated in extracurricular activities. In her early adolescence she started having anger outbursts and frequent fights with her friends, became very stubborn. She didn't share a strong bonding with her family. This was considered as normal difficult phase of adolescence by the family. But complaints intensified and other behavioural changes and problems were manifested in late adolescence. She discontinued study during her 2nd B.Sc. as she couldn't cope up with the problems in the college and her interest in studies had also declined overtime.

Family History

Ms. S is a 23 year old lady hailing from an upper middle socioeconomic background. She makes second child to her parents. She lost father to heart attack. Her mother (46 years) is a govt. official. S has one elder brother (25 years), working as Engineer [Fig-1].

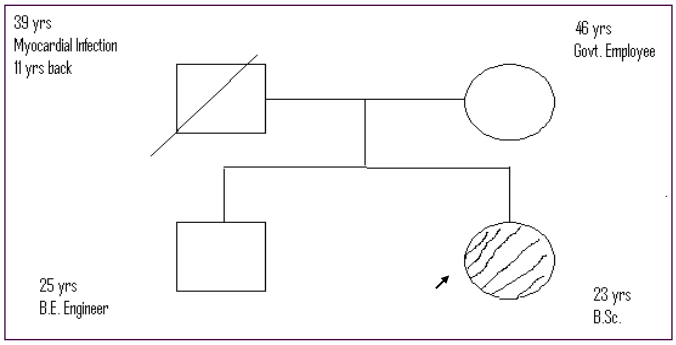

Fig. 1- Genogram or Family tree of the client

- Her family is nuclear family type
- Her parents marriage is not consanguineous
- No history of psychological problems or other disorders in the family

Personal History

Birth history: Full term/ uneventful birth

Developmental Milestone

Motor, Adaptive, Speech, Social — Normal

Any Childhood disorders: No

Academic performance: Average

Social Relationship: Very limited social circle and acquaintances

Pre morbid personality: normal

History of any physical illness: Nil

Mental Status Examination

General Appearance & behavior- Looks one's age, adequate cleanliness, and normal level of functioning.

Mood- Congruent, appropriate, normal emotional expression.

Talk- Normal initiation, reaction time, speed and output.

Thought- Normal

Perception- No delusion

No hallucination in any sensory modality

Orientation

Place, Person, Time — Intact

Memory

Immediate, Recent, Remote — Intact

Insight- Present/Yes

Judgment- Good

Conclusion of the case

- Insight- Present/Yes
- Judgment- Good
- No delusion or hallucination noted
- Memory intact

Looking at her history and present complains it can be concluded that the client is suffering from BPD. Her criminal behavior too justifies the same.

Conflicts of Interest: None declared.

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