

CHAPTER 10

PERSONALITY AND PERSONALITY DISORDER



Illustration. Can you spot the differences? These two individuals are both holding a toy bear above their heads in their right hands. One picture is taken outside in daylight and the other is taken indoors at night. One individual is young and female, the other is old and male. Can you make a guess at possible personality differences? The female looks more extraverted and fun loving, the male looks more conservative and grumpy. Like the some chemical pathology tests, the appearance gives potentially useful information about the individual, but further information is required before conclusions can be reached. Does either or both have a personality disorder? Bad question. A diagnosis of personality disorder cannot be made on limited information. The female is a former porn actress who made a successful transition into the Italian parliament. The male is the current author (who wanted to be a porn star). They are probably both “different” or “eccentric”, but probably neither has a diagnosable personality disorder.

Introduction

Personality disorders are important from the perspective of prevalence and consequence. People with personality disorder may constitute up to 20% of the general population, 15% of psychiatric outpatients, and 10% of psychiatric inpatients.

Students encounter people with personality disorder more frequently than these prevalence figures might suggest. People with personality disorders are frequent attendees at hospital Emergency Departments, as a result of social crises, injuries from fights, alcohol or drug intoxication, or with self-injuries. Personality disorder is present in 43% of treatment-seeking problem gamblers (Brown et al, 2016). People with personality disorders are often encountered as inpatients following over-doses and because of they have difficulty managing any other chronic disorder they may suffer.

Co-morbid personality disorder makes the management of other psychiatric disorders such as schizophrenia and bipolar disorder much more difficult. Thus, while only 10% of the inpatients of public hospital psychiatric units have personality disorder as their primary disorder, many other psychiatric patients will be co-morbid for personality disorder.

Personality

There are many definitions of personality. A good example - personality is those features which determine that individual's unique response to the environment (human and non-human). Expanded descriptions add that personality is "lifelong and persistent" (although personality changes somewhat over time, through the natural maturation process, and can be changed through sustained psychotherapy), and that personality features are "enduring characteristics and attitudes" which influence the individual's ways of thinking, feeling and behaving.

I had thought Freud had said that a healthy personality was demonstrated by the ability to "love and work". With a view to presenting a pithy statement, I located his exact words, and I had remembered them incorrectly. He actually said, "Love and work are the cornerstones of our humanness"; which is not the same thing, but the ideas are close. To be able to love means to be able to be warm, supportive, encouraging, intimate, forgiving and respectful of others; to be able to work means to be able to accept responsibility for one's actions, take directions, expend effort in spite of lacking energy and to delay gratification (delay what one would like to be doing for a time, while other things such as education are achieved).

Normal versus abnormal

It is difficult/impossible to know exactly what and how another person thinks and feels. What may be adaptive in Beirut may be maladaptive in Sydney, what is humorous in Melbourne may be insulting in Kuala Lumpur. Next-door neighbours may fanatically support opposing football team, or one may have no interest in sport whatsoever. Thus, the concept of "normal" must be approached with caution.

Normal is sometimes taken to mean with no impediment whatsoever. This meaning was adopted by the World Health Organization when it defined health as a state of complete mental and physical well-being (which is no use in this discussion).

Normal may also mean average. Personality features obey the normal distribution curve, with the majority of the population registering in the middle of the graph and a few individuals at the extremes. In the statistical sense those beyond 2 standard deviations of the mean may be regarded as abnormal, with respect to the dimension under consideration (i.e., warmth, perfectionism, impulsivity).



Illustration. This person, who has long fingernails, appears to have different values, at least in some regards, to the majority of readers. But further data are required before comment can be made about other personality features.

Conflict of interest

The current author has reservations. Yes, there are people at the extremes of the normal distribution curve with respect to personality (or a particular personality trait) but, does this mean they have a ‘disorder’? And if ‘personality disorder’ does exist, what does it have to do with psychiatrists, other than complicating the treatment of other disorders such as schizophrenia? Does ‘personality disorder’ meet the criteria of ‘a disorder’ as neatly as does schizophrenia?

Personality disorder

DSM-5 states, “A Personality disorder is an enduring pattern of inner experience and behaviour that deviates markedly from the expectations of the individual’s culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time and leads to distress and impairment”.

Exactly how the “distress and impairment” are supposed to manifest is not clear. People with “neurotic disorders” (an old fashioned term, an example is anxiety disorder) have “autoplastic defences” meaning they react to stress by attempting to change their own internal psychological process, and perceive their disorder as “ego-dystonic”, meaning they find their symptoms unacceptable, objectionable and in need of change. People with personality disorders, in contrast, have “alloplastic defences” meaning they react to stress by attempting to change the external environment (rather than themselves), and perceive their symptoms (that is, their personality deficits) as “ego-syntonic”, meaning they find these aspects of themselves to be acceptable, unobjectionable and not in need of change.

As people with personality disorder believe the world should change to accommodate them/their wishes (rather than they should adjust themselves to the world) and view their own features to be acceptable and not in need of change, they often experience less distress as a direct result of their personality disorder than might be expected. However, the world does not change to suit them, and they experience indirect distress as a result of their personality disorder; that is, their maladaptive responses lead to failed relationships (with lovers, family and employers), losses and disappointments. These events cause the individual considerable distress.

Accordingly, people with borderline personality disorder (BPD) show enduring lowered economic functioning (Niesten et al, 2016).

The individual with personality disorder (particularly, antisocial personality disorder) generates distress in others (through failed relationships, etc.), irrespective of whether they experience distress themselves. This feature is not included in the DSM-5 definition.

The DSM-5 definition makes the point that the behaviour of the individual is “inflexible”. It does not make the important point that the individual with a personality has a limited repertoire, or number of ways, of responding to the world. Faced with opposition the normal/average individual has a range of responses: to think of a new approach, work harder and try again when better prepared, to use humour, to be more assertive, to reassess whether the goal is worth further effort or not, etc. The individual with a personality disorder has a limited number of ways of responding (for example, responses may be limited to seduction or aggression). These are applied in all situations, and because of inflexibility, they are applied repeatedly, even when they have already proved unsuccessful. In these circumstances loss and disappointment, and direct and indirect distress are inevitable.

Dimensional model

The view that we all share personality features/traits, and these can be quantitatively scored, is the basis of dimensional models of personality/personality disorder.

The diagnosis/classification of personality disorder is heading in this direction. A categorical approach has and continues to be used – however, the DSM-5, in addition to the categorical account, has introduced “an alternative model of personality disorder” - which is dimensional in nature, and will be discussed in the latter half of this chapter.

[Historical - earlier dimensional approaches include:

1. The Eysenck Personality Inventory (EPI) measures two separate dimensions: extraversion-introversion (which measures reserved, versus outgoing attitude) and neuroticism (which measures tendency to distress).
2. The Cattell 16 Personality factor Test (16PF) measures 16 different dimensions, and the Minnesota Multiphasic Personality Inventory (MMPI) (probably the most widely used personality test) measures 10 different dimensions.

3. McCrae & John (1992) developed a five-factor model (FFM) of personality which was widely accepted. It employs the personality dimensions of 1) openness, 2) conscientiousness, 3) extraversion, 4) agreeableness, and 5) neuroticism, known by the acronym OCEAN.
4. Cloninger et al (1993) described four temperamental dimensions, 1) novelty-seeking, 2) harm avoidance, 3) reward dependence, and 4) persistence), which are present from birth and are essentially stable. In addition, this group described three character dimensions (1, self-direction, 2) co-operation, and 3) self-transcendence) which are variable and modified by experience. He believed that while the temperamental dimensions strongly influence behaviour, it is the character dimensions which determine the presence or absence of personality disorder.]

DSM-5 (Categorical and Dimensional concepts)

The categorical model is used in the DSM-5 and ICD-10. It considers personality disorders to be distinct from healthy, no personality disorder. It also considers the different personality disorders to be distinct from each other, such that they can be placed in separate boxes or categories.

In this chapter we will focus mainly on the categorical diagnostic method, as this is currently the clinically dominant approach. However, immediately after the section dealing with categorical diagnostic criteria, some details of The Alternative DSM-5 Model for Personality Disorder (apparently - the way of the future?).

The Diagnostic Criteria

The clinical interview with the patient (and those who know the patient) is currently the most useful diagnostic method. A detailed life history provides extensive information regarding previous and likely future responses to the environment, and is invaluable to personality assessment.

The clinical interview itself, is a test situation, which provides practical examples of the patient's manner of self-presentation and response. The skilled interviewer will also make observations regarding her/his own response to the patient, which is likely to be similar to the responses of others.

DSM-5 groups the personality disorders into three clusters, based on descriptive similarities.

The first task is to identify the appropriate Cluster. The precise diagnosis is less important.

Cluster	Subtype	Discriminating features	
A	Odd/eccentric	Paranoid	Suspicious
		Schizoid	Socially indifferent
		Schizotypal	Eccentric
B	Erratic/impulsive	Antisocial	Disagreeable
		Borderline	Unstable
		Histrionic	Attention seeking
		Narcissistic	Self-centered
C	Anxious/fearful	Avoidant	Inhibited
		Dependent	Submissive
		Obsessive	Perfectionistic

Table. Clusters of personality disorder, adapted from DSM-5

Students will have more contact with people with Cluster B personality disorder, as people from this cluster are far more likely than those with Cluster A and C disorders, to present at Emergency Departments and to be admitted to public hospitals.

Cluster A – Individuals appear odd or eccentric

Paranoid

Pervasive distrust and suspiciousness, such that the motives of others are interpreted as malevolent. Beginning by early adulthood.

There must be at least 4 of the following:

- Suspects, without sufficient basis, that others are exploiting, harming, or deceiving
- Preoccupied with unjustified doubts about the loyalty or trustworthiness of friends or associates
- Reluctance to confide in others
- Reads hidden demeaning or threatening meanings into benign remarks
- Persistently bears grudges (unforgiving of insults or slights)
- Perceives attacks on his/her character or reputation which are not perceived by others
- Recurrent unjustified suspicions regarding fidelity of spouse or partners

Prevalence rate in the general population is 0.25-0.5%. Prevalence rate in psychiatric inpatient units is 10-30%. Increased prevalence in the families of people with schizophrenia and delusional disorder.

Schizoid

Pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings. Beginning by early adulthood.

There must be at least four of the following:

- Indifference to praise or criticism
- Preference for solitary activities and fantasy
- Lack of interest in sexual interactions
- Lack of desire or pleasure in close relationships
- Emotional coldness, detachment, or flattened affectivity
- No close friends or confidants other than family members
- Pleasure experienced in few, if any, activities

Prevalence estimates in the general population vary, may be as high as 7.5%. Increased prevalence in the families of people with schizophrenia.

Schizotypal

Pervasive pattern of social and interpersonal deficits marked by acute discomfort with, and reduced capacity for, close relationships as well as by cognitive or perceptual distortions and eccentricities of behaviour. Beginning by early adulthood. There must be at least 5 of the following:

- Ideas of reference (not delusions)
- Odd beliefs and magical thinking (superstitiousness, beliefs in clairvoyance, telepathy, etc)
- Unusual perceptual disturbance (illusions, sensing the presence of nearby people etc)
- Paranoid ideation and suspiciousness
- Odd, eccentric, peculiar behaviour
- Lack of close friends, except family members
- Odd thinking and speech without incoherence (vague, metaphorical etc)
- Inappropriate or constricted affect
- Social anxiety that does not diminish with familiarity and that is associated with paranoid fears.

Prevalence rate in the general population is 3%. Increased prevalence in the families of people with schizophrenia (indicating some shared genetic factors).

People with schizotypal personality disorder share some features with people with schizophrenia: 1) psychotic-like symptoms (ideas of reference, perceptual distortions), 2) negative or deficit-like symptoms (a tendency to social withdrawal), and 3) some cognitive deficits in sustained attention and executive function (Siever & Davis, 2004; McClure et al, 2007).

In both conditions there are also abnormalities in empathic understanding (Pickup, 2006). This topic is covered in Chapter 33, Theory of Mind.

Cluster B – Individuals appear erratic or impulsive

Antisocial

Pervasive pattern of disregard for and violation of the rights of others occurring since the age of 15 years. The individual must be at least 18 years of age and there must be evidence of conduct disorder before 15 years of age.

There must be at least 3 of the following:

- Failure to conform to social norms (resulting in frequent arrests)
- Deceitfulness, including lying and conning others for personal profit/pleasure
- Recklessness, with disregard for the safety of self or others
- Irresponsibility, failure to honour financial obligations or sustain work
- Lack of remorse, indifference or rationalization of having hurt, mistreated or stolen from others

A feature of antisocial personality disorder, which is not specifically mentioned in the DSM-IV criteria, is low impulse control, or “impulsivity”. Low impulse control can lead to inappropriate aggression and other unacceptable behaviour.

US man charged for shooting mower

A 56-year-old man from the Midwestern US state of Wisconsin has been arrested after shooting his lawn mower in his garden because it would not start.

Keith W was charged by police in Milwaukee with disorderly conduct and possession of a sawn-off shotgun.

He could face a fine of up to \$11,000 and a maximum prison sentence of six-and-a-half years if convicted.

Police officers said Mr W had told them: "It's my lawn mower and my yard, so I can shoot it if I want."



Witnesses told police Mr W appeared to have been drinking

BBC: 26, July, 2008

Illustration. This man may not have a personality disorder. It does appear that he has low impulse control. On the other hand, his impulse control may simply have been temporarily lowered by alcohol intoxication.

Prevalence in the general population is 3% for men and 1% for women. Increased prevalence in some families.

In the past, the terms antisocial personality and psychopath/psychopathic personality disorder were used interchangeably. More recently, a distinction has been made. The antisocial individual is one who demonstrates behaviour of the type listed above. The psychopathic individual demonstrates antisocial behaviour, but in addition, demonstrates emotional impairment such as lack of guilt. Only 1/3 of those with antisocial behaviour meet the criteria for psychopathy (Hart & Hare, 1996). It is argued that the emotional impairment of individuals with psychopathy interferes with socialization, such that they do not learn to avoid antisocial behaviour.

Borderline

Pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity. Beginning by early adulthood.

There must be at least 5 of the following:

- Frantic efforts to avoid real or imagined abandonment
- 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 2 areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating)
- Recurrent suicidal behaviour, gestures or threats, or self-mutilation behaviour
- Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)
- Chronic feeling of emptiness
- Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)
- Transient, stress-related paranoid ideation or severe dissociative symptoms.

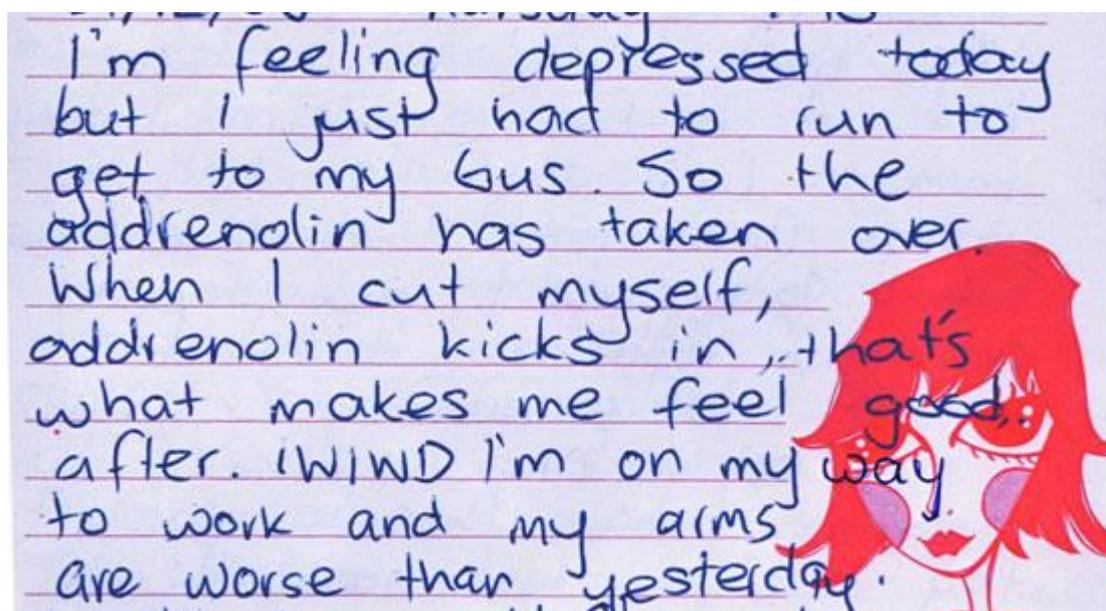


Illustration. This is an entry from a note book maintained by an 18 year old female with borderline personality disorder. She states she is feeling “depressed”. She is referring to feelings of distress, rather than the experience of major depressive disorder – although the two are frequently confused by patients, their parents and some doctors. She makes mention that when she cuts herself she feels “good”. Self cutting is very common in people with borderline personality disorder – it serves as a means of releasing tension/distress. She uses a code IWIWD (I wish I was dead). She makes this statement without apparent conviction – people with borderline personality disorder frequently engage in suicidal behaviour (this is in addition to the cutting, most of which has little to do with suicide, and as mentioned, is a means of releasing tension/distress).

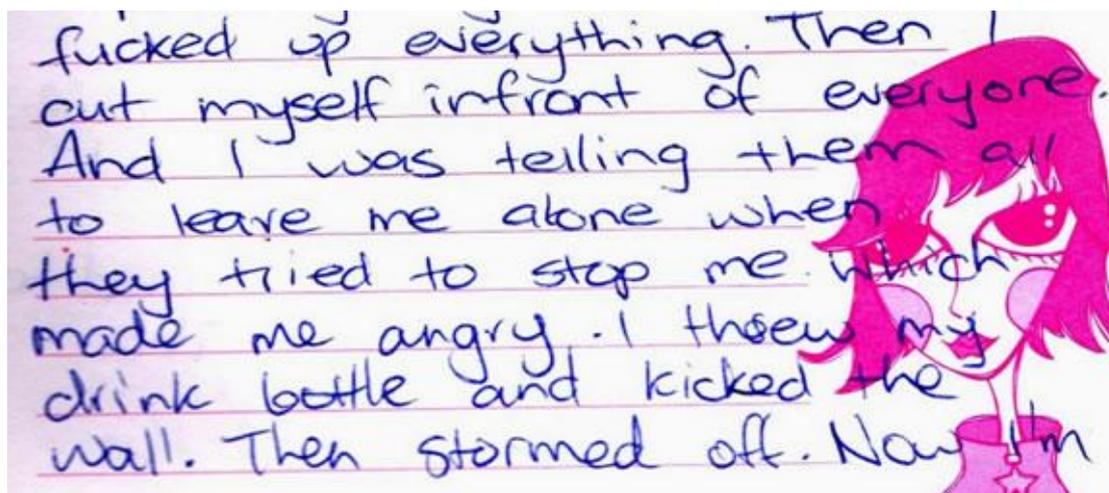


Illustration. A further abstract from the note book mentioned above. The patient was waiting at a bus stop with some people she knew when (she cannot remember why) she began to have negative thoughts. "Then I cut myself in front of everyone." Naturally people tried to stop her – this made her angry and threw things around and kicked things. Dramatic, care eliciting, manipulative behaviour and unreasonable anger are common features of borderline personality disorder.



Illustration. The arm of a man with a history of 'cutting'. This man did not satisfy the diagnostic criteria of borderline personality disorder. However, there were borderline, histrionic and narcissistic traits. He occasionally of cut himself when he was stressed.



Illustration. The arms, hands and abdomen of a man with a history of cutting. This man satisfied the diagnostic criteria of borderline personality disorder. He kept the large lesion on his left arm permanently open. The edges and even the base of the lesion were scarred and indurated. He burnt the dorsum of his right hand and there was muscle tissue loss from the extensors of his right forearm. There were less obvious (in these photographs) scars on the upper chest. In the past he had swallowed razor blades, which had perforated his bowel, leading to abdominal surgery. This man then repeatedly removed the stitches and recut his abdominal scar leading to a large incisional hernia. (The bulge in the middle of his abdomen is abdominal organs pushing out against the skin, the muscle wall of his abdomen having been damaged through the repeated self cutting.)

Prevalence rates are 2% in the general population, and 20% in psychiatric inpatient populations. Childhood abuse is frequently reported. There is an increased prevalence in some families.

Histrionic

Pervasive pattern of excessive emotionality and attention seeking. Beginning by early adulthood.

There must be at least 5 of the following:

- Is uncomfortable in situations in which he/she is not the centre of attention
- Inappropriate sexually seductive or provocative behaviour
- Displays rapidly shifting and shallow expressions of emotions
- Consistently uses physical appearance to draw attention to self
- Has a style of speech that is excessively impressionistic and lacking in detail
- Shows self-dramatization, theatricality, exaggerated expressions of emotion
- Is suggestible (easily influenced by others or circumstances)
- Considers relationships to be more intimate than they actually are

Prevalence rates are 2-3% in the general population, and 10-15% in psychiatric inpatient populations. Tends to run in families. A genetic link between histrionic and antisocial personality disorder, and alcoholism, has been suggested.

Narcissistic

Pervasive pattern of grandiosity (in fantasy or behaviour), need for admiration, and lack of empathy. Beginning by early adulthood.

There must be at least 5 of the following:

- Has a grandiose sense of self-importance (eg, exaggerates achievements and talents, expects to be recognized as superior without achievements)
- Is preoccupied with fantasies of unlimited success, power, brilliance, beauty, or ideal love
- Believes he/she is “special” and unique and can only be understood by, or should associate with, other special or high-status people (or institutions)
- Requires excessive admiration
- Has a sense of entitlement, i.e., unreasonable expectations of especially favourable treatment or automatic compliance with his/her expectations
- Is interpersonally exploitative, i.e., takes advantage of others
- Lacks empathy
- Is often envious of others or believes that others are envious of him/her
- Arrogant, haughty behaviours or attitudes

Prevalence rates are 1% in the general population, and 2-16% in clinical population.



Illustration. The leading story of a regional newspaper told that a state branch of the Royal Society for the Protection and Care of Animals had lost millions of dollars in donations due, in part, to the "repeated lying" of the CEO.

In his response the CEO wrote, "...I am a very moral and ethical person and feel incredible shame that this happened...I admit freely the lies I told..."

It may be difficult to obtain a complete understanding of events from newspaper reports. Here, the reader finds it difficult to comprehend how a person in a position of responsibility could admit to telling "lies", but at the same time maintain that, "I am a very moral and ethical person". One explanation would be that the individual is narcissistic and thinks well of himself, in spite of evidence to of immoral actions.

Cluster C – Individuals appear anxious or fearful

Avoidant

Pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation. Beginning by early adulthood.

There must be at least 4 of the following:

- Avoids occupational activities that involve significant interpersonal contact, because of fears of criticism, disapproval, or rejection
- Is unwilling to get involved with people unless certain of being liked
- Shows restraint within intimate relationships because of the fear of being shamed or ridiculed
- Is preoccupied with being criticized or rejected in social situations
- Is inhibited in new interpersonal situations because of feelings of inadequacy
- Views self as socially inept, personally unappealing, or inferior to others
- Is unusually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing

Prevalence of 0.5-1% in the general population, and 10% in psychiatric outpatients.

Dependent

Pervasive and excessive need to be taken care of that leads to submissive and clinging behaviour and fears of separation. Beginning by early adulthood.

There must be at least 5 of the following:

- Has difficulty making everyday decisions without an excessive amount of advice and reassurance from others
- Needs others to assume responsibility for most major areas of his/her life
- Has difficulty expressing disagreement with others because of fear of loss of support or approval
- Lack of initiative
- Goes to excessive lengths to obtain nurturance and support from others
- Feels uncomfortable or helpless when alone because of exaggerated fears of being unable to care for him/herself
- Urgently seeks another relationship as a source of care and support when a close relationship ends
- Unrealistically preoccupied with fears of being left to take care of him/herself

May be the most common personality disorder. There is no known familial pattern.

Obsessive-compulsive

Pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency.

Beginning by early adulthood.

There must be at least 4 of the following:

- Preoccupation with details, rules, lists, order, organization or schedules to the extent that the major point of the activity is lost
- Perfectionism that interferes with task completion
- Over conscientiousness, scrupulousness, and inflexible about matters of morality, ethics, or values.
- Unable to discard worn-out or worthless objects even if they have no sentimental value
- Reluctant to delegate tasks or to work with others unless they submit to exactly his/her way of doing things
- Adopts a miserly spending style toward both self and others; money is viewed as something to be hoarded for future catastrophes
- Shows rigidity and stubbornness

Prevalence rates are 1% in the general population, and 3-10% in psychiatric outpatients. There is an increased risk of major depressive disorder and anxiety disorder, but for evidence for increased risk of OCD has not been established.

Alternative DSM-5 Model for Personality Disorders

The DSM-5 authors are in favour of moving to a dimensional approach. They present the categorical model (and diagnoses) which are well established, but also introduce **The Alternative DSM-5 Model for Personality Disorder**, with the aim of addressing some shortcomings of the categorical approach, and with the suggestion that this may be the way of the future.

The Alternative DSM-5 Model for Personality Disorders will probably, gradually become incorporated into clinical practice – however, it is not necessary to be fully conversant with this model at this stage.

This model contends that personality disorders are characterized by impairments in personality *functioning* and personality *traits*.

Personality functioning is composed of two domains: ‘self’ and ‘interpersonal’.

1. Self:

- a. **Identity:** Experience of oneself as unique, with clear boundaries between self and others, stability of self-esteem and accuracy of self-appraisal; capacity for and ability to regulate, a range of emotional experiences.
- b. **Self-direction:** Pursuit of coherent and meaningful short-term and life goals; utilization of constructive and prosocial internal standards of behaviour; ability to self-reflect productively.

2. Interpersonal:

- a. **Empathy:** Comprehension and appreciation of others’ experiences and motivations; tolerance of differing perspectives; understanding the effects of one’s own behaviour on others.
- b. **Intimacy:** Depth and duration of connection with others; desire and capacity for closeness; mutuality of regard reflected in interpersonal behaviour.

Five **Pathological Personality traits** have also been listed in DSM-5

1. Negative affectivity
2. Detachment
3. Antagonism
4. Disinhibition
5. Psychoticism

And each of these can exist at five levels.

Neuroimaging in personality disorder

Neuroimaging in personality disorders is a relatively new field. It would not be surprising if the brains of people who thought and behaved differently to the average person had somewhat different brain operations. But that does not mean the presence of lesions. It is probable that your brain operates a little differently to the way Isaac Newton’s brain operated, but that does not mean you have a brain lesion (so, relax).

It needs to be said that personality and personality disorder is subtle stuff – and modern neuroimaging techniques generate vast amounts of information, and neuroimaging teams do not follow a standard protocol.

Accordingly, it is most unlikely that neuroimaging will produce anything of clinical significance in the foreseeable future – the following details are provided to give a sense of the activity in this research area.

Psychopathic personality

Neuroimaging in psychopathic personality disorder has been reviewed (Pridmore et al, 2005). Structural studies have reported decreased prefrontal grey matter, decreased posterior hippocampal volume and increased callosal white matter, but to this point, these studies have not been confirmed. Functional studies suggest reduced perfusion and metabolism in the frontal and temporal lobes.

Two studies are of interest - Kiehl et al (2001) used fMRI and reported that when criminal psychopaths were dealing with emotional material (words), there was increased activity in the frontotemporal cortex. This was taken as evidence that psychopaths needed to exert additional effort to deal with emotional material. The same group (Kiehl et al, 2004) then reported that criminals failed to show a difference in activation of the right anterior temporal gyrus when processing abstract and concrete words. This was consistent with the proposition that psychopathy is associated with dysfunction of the right hemisphere during the processing of abstract material. The authors speculated that complex social emotions such as love, empathy and guilt may call for abstract functioning, and that abstract processing deficits based in the right temporal lobe, may be a fundamental abnormality in psychopathy.

Blair (2003), however, argues that the neural basis of psychopathy is malfunction of the amygdala and connections to the orbitofrontal cortex.

Borderline personality disorder

Imaging studies demonstrate differences between people with BPD and healthy controls.

Kuhlmann et al (2012) found, in women with BPD, reduced grey matter in the hippocampus and increased grey matter in the hypothalamus.

Functional abnormalities have been detailed (Krause-Utz et al, 2014).

Magnetic Resonance Spectroscopy (MRS) reveals N-acetyl-aspartate (NAA) concentrations are reduced in the dorsolateral prefrontal cortex, suggesting a lower density of neurons and disturbed neuronal metabolism. These anatomical studies are consistent with functional imaging findings.

Positron emission (PET) studies generally demonstrate low metabolism in regions of the frontal cortex, basal ganglia, thalamus, hippocampus and posterior cingulate. Some studies have shown hypermetabolism in the anterior cingulate gyrus, and other structures. These data are consistent with the theory that the areas of the brain which regulate and control emotions are underactive, while the limbic structures may become overactive. If substantiated, these observations may help to explain the failure of rational thought to control emotions and behaviour.

Schizotypal personality disorder

Schizotypal personality disorder (SPD) attracts research attention because of the clinical similarities and genetic links with schizophrenia. SPD is associated with significantly smaller grey matter volume of the left superior temporal gyrus and widespread frontal frontolimbic and parietal regions (Asami et al, 2013). These

changes were proportional to symptoms. Also, these changes are similar to those found in schizophrenia, but do not appear to be progressive, as in schizophrenia.

SPD also features some white matter (thalamo-frontal tract) deficits (Hazlett et al, 2012). Again, these are similar to, but not as extensive as, those found in schizophrenia.

Traits

There has also been recent neuroimaging of individual traits – again, the clinical significance of this work is not immediate.

‘Novelty seeking’ and ‘harm avoidance’ are components described in the Temperament and Character Index (Cloninger et al, 1993). Laricchiuta et al, (2012) recently reported that novelty seeking scores were positively associated and harm avoidance was negatively associated with white matter and cerebellar cortex volumes. [The possibility that personality features could be associated with cerebellar structure is most unexpected – some evidence suggests that SPD may be associated with reduced activation of the cerebellum (Zhang et al, 2014) – but, remember, when we get too much data, chance steps out of the shadows.]

Alexithymia (difficulty identifying and describing one’s feelings) is a personality trait which has been associated with various psychopathological states, particularly psychosomatic disorders. Kano and Fukudo (2013) have described alexithymia as being associated with lower reactivity in brain regions associated with emotion – limbic areas (cingulate cortex, anterior insula, amygdala) and the prefrontal cortex. Grabe et al (2014) found, in people with alexithymia, lower grey matter volume in the dorsal anterior cingulate cortex and various left temporal regions.

Neuroticism can be considered the tendency of the individual to experience distress. Terasawa et al (2012) have shown that right anterior insular activation is positively correlated with neuroticism, and negatively correlated with agreeableness and extraversion.

Genetics

The personality disorders are a heterogeneous collection, and the genetic basis of each (if any) may be different – the following is a taste of slowly emerging research.

There appears to be a genetic component for the development of borderline personality disorder. There is a strong genetic influence on the traits which underlie this disorder, such as neuroticism, impulsivity, anxiousness, affective instability, and insecure attachment (Skodol et al, 2002).

Neuroticism is strongly influenced by genetic factors (Viken et al, 1994).

Impulsivity and aggressiveness are both influenced by genetics (Mann et al, 1999).

There is an increased prevalence of schizotypal personality disorder in the families of people with schizophrenia, suggesting common genetic factors (Siever & Davis, 2004).

A polymorphism of the Catechol-O-methyltransferase (COMT) gene may contribute to personality disorders, especially where anxiety is a feature (Montag et al, 2012). (COMT is one of a group of enzymes which degrade the catecholamines, such as dopamine, adrenalin and noradrenalin.)

Allelic variations of monoamine oxidase A (MAOA; which catalyses monoamine neurotransmitters) activity appear to contribute to the balance of hyperactive (impulsive-aggressive) and hypoactive (anxious-depressive) traits (Jacob et al, 2005).

Epigenetics

Epigenetics is promising to provide unprecedented insight into the biology of personality disorder. Chapter 37 (Epigenetics) is recommended.

Epigenetics refers to environmental events causing the attachment to, or removal from, DNA (not altering the DNA sequence), molecules (such as methyl groups) which influence gene expression. This is the molecular mechanism by which environmental influence on DNA produces the phenotype.

Examples of epigenetics extending our understanding of personality disorder:

1. A series of studies (Weaver et al, 2004) demonstrate that the pups (offspring) of rat mothers who provided a particular type of (good) mothering, go on to be 1) 'good' mothers themselves, and 2) calm and well able to adapt to stress, and to demonstrate, 3) increased methylation of hippocampal glucocorticoid receptor (GR) genes.
2. People who are sexually abused as children have altered methylation of hippocampal GR gene (McGowan et al, 2009).
3. When people with borderline personality disorder are effectively treated with psychotherapy, there is a modification of the methylation of the brain derived neurotrophic factor (BDNF) gene (Perroud et al, 2013).
4. Child sex abuse leads to a) methylation of the promoter region of the serotonin gene, and b) female antisocial personality disorder – it is probable that methylation is the mechanism which links the abuse and the disorder (Beach et al, 2011; Nemeroff, 2016).
5. Correlations have been demonstrated (Martin-Blanco et al, 2014) between childhood maltreatment and GR gene methylation, and between the extent of GR methylation and clinical severity of borderline personality.

Immune system

Disrupted immune activity has been advanced as a feature of many psychiatric disorders (see Chapter 34: Psychoneuroimmunology).

An early study (Coccaro et al, 2014) has demonstrated a positive relationship between C-reactive protein (CRP) levels and aggression in humans.

Aetiology

In common with other psychiatric disorders, the aetiology of personality disorders appears to be multifactorial, involving genetic, prenatal, early life experience, epigenetic and precipitating and perpetuating factors.

Prenatal factors including hormone and alcohol exposure, intrauterine nutrition, and birth complications such as hypoxia, can all impact on personality.

Temperament refers to aspects of personality which are considered innate, rather than learned, and can be observed in babies from birth. Temperament has an impact on the child's interaction with others (parents). A mismatch between the temperament of the child and the temperament of the parents makes for a difficult relationship, and this may predispose to the development of behavioural and personality disorders.

By definition personality disorders are long lasting. Contributing factors may include unhealthy early life experiences. However, personality disorder may only become apparent with the loss of an important support, such as caring parent, or when the individual is exposed to additional stress, such the responsibility for the care of a new baby.

Features of personality disorder may perpetuate the disorder – for example, illegal drug use, aggressive outbursts, and inappropriate sexual provocation damage relationships and lead to additional losses, distress and anger. The individual with a personality disorder has limited ability to deal with stress in an adaptive manner, thus, limited ability to halt self-reinforcing, maladaptive cycles.

Prognosis

Prognosis depends on the nature and severity of the personality disorder. Cluster B disorders, characterized by erratic and impulsive behaviour usually improve with age (after 35 years). These people (as with the rest of us) mature over time and become less volatile, violent and irritable. Cluster C disorders, characterized by anxious and fearful disposition tend to become more confident and assertive. Cluster A disorders, characterized by eccentricity, may not change markedly.

Borderline personality disorder is often thought of as a chronic, unremitting disorder. A recent report (Gunderson, et al. 2011), however, found that over 10 years, 85% remitted (but what is meant by 'remitted' remains unclear) and only 12% relapsed. Pessimism regarding the prognosis in Cluster B disorder may be because a small number of people with severe borderline personality disorder can overwhelm regional resources. While remission of this disorder may occur, impaired social functioning commonly remains, and only about one third find employment.

Suicide may occur, particularly in Cluster B disorders. The risk declines with maturation.

Management

Management begins with a full assessment and the exclusion of other psychiatric disorders, such as major depression. Comorbid conditions should be managed in the standard manner.

Treatment depends on the nature of the personality disorder, patient willingness to engage in treatment and the available resources (availability of specialist psychotherapists and treatment programs).

Prolonged treatment may be necessary and complete recovery is the exception rather than the rule. Individuals with antisocial personality disorder are usually unable to cooperate and maintain a therapeutic relationship and are generally regarded as untreatable in all but specialized (usually forensic) units.

Psychotherapy is the primary treatment. This may take many forms. Both dynamic psychotherapy (with roots in Freudian analysis) and cognitive behaviour therapy (which is focused more on thinking processes and behaviour) have much to offer. Supportive psychotherapy, in which the therapist mainly supports, educates and encourages the patient through the trials of life “buys time” (helps reduce self-destructive behaviour) and fosters the growing process. Psychotherapy may be conducted as individual or group sessions. In specialized practice the patient may attend both individual and group sessions.

Dialectical Behavior Therapy (DBT) is a form of psychological treatment designed specifically for individuals with self-harm behaviors, such as self-cutting, suicide thoughts, and suicide attempts (that is, common features of borderline personality disorder). While there is great enthusiasm for DBT in borderline personality disorder, it may not be superior to all other forms of treatment (Andreasson et al, 2016).

Medication has a place in the treatment of personality disorder. The aim is to assist with circumscribed symptoms (Ripoll, et al, 2011).

Avoidant personality disorder is indistinguishable from “social anxiety”, and anxiolytic medication may have a place. There is some evidence for the use of gabapentin and pregabalin (Pande et al, 2004).

In schizotypal personality disorder, psychotic-like symptoms and cognitive deficits may be assisted by use of low-dose anti-psychotics.

In antisocial personality disorder, impulsive aggression of incarcerated males has been reduced with lithium therapy.

In borderline personality disorder fluoxetine has been used to reduce impulsive aggression, and flupenthixol deconoate has reduced suicidal behaviour. Lithium and anticonvulsants have been used for affective instability. Evidence suggests that

aripiprazole may be useful for a range of borderline symptoms (Nickel et al, 2006). However, many of the central symptoms of the disorder, such as chronic emptiness and interpersonal dysfunction are unresponsive to medication.

Benzodiazepines are best avoided in the management of borderline personality disorder, due in part to the potential for abuse, but also because these medications may disinhibit and worsen symptoms (Cowdry & Gardner, 1988).

It is important to involve the family if possible (but frequently personality disorder has led to family disintegration and animosity). A clear explanation at an early stage, of the diagnosis, the difficulties experienced by the patient and the clinician, and the likely prognosis, will be of assistance to all involved.

The management of people with borderline personality presents special challenges. These people are usually angry much of the time and can move from happy to unhappy in response to minor events. They are particularly inclined to self-mutilation (cutting) and suicidal behaviour. Many people with borderline personality disorder have a limited ability to understand and describe the way they are feeling; they are limited to feeling good/happy or bad/distressed/tense/angry. They have limited ability to deal with their bad/distressed/tense/angry state. When they are in this unwelcome state they often get relief from cutting themselves. They report feeling a sense of relief when their blood flows. Such cutting can be distinguished from both attention seeking behaviour (although some subsequent attention may also be rewarding) and the intention to die. However, suicide may be attempted and may be successful.

People with borderline personality (as with people with other personality disorders) are best managed in the community with the help of an experienced psychotherapist/counsellor. It is better for them to live in the “real world” and learn to deal with the challenges which the “real world” presents. However, admission to hospital for a brief time (2-3 days) may be indicated when they are in the grip of the bad/distressed/tense/angry state. Such admissions are for safety purposes only. Being in hospital for long periods increases dependency and a sense of impotence and failure. Hospital is an artificial environment with little opportunity for the growth of a sense of autonomy and competence. The best outcome may be achieved where the patient, an out-patient psychotherapist and a psychiatric inpatient unit cooperate in formulating a plan of regular out-patient psychotherapy and easy admission and rapid discharge (no inpatient psychotherapy) at times of crisis.

[Some regions have specialized inpatient units for the treatment of personality disorder (Sollberger et al, 2014). These are rare, expensive and controversial.]

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