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Department of Social Protection

Stress-Related and Adjustment Disorders

Contents

1. Overview and Definition of Stress-Related and Adjustment Disorders

1.1 Overview

This protocol covers the conditions listed below. Definitions are contained within this protocol for these conditions as stated by the World Health Organisation (2007) in the International Classification of Diseases (ICD-10), and Diagnostic and Statistical Manual of Mental Disorders (2000) Text Revision (DSM-IV-TR) coding systems.

- Acute Stress Reaction
- Post Traumatic Stress Disorder (PTSD)
- Adjustment Disorder
- Work Related Stress (not covered by diagnostic coding systems – see Section 5 for explanation)

There is an increasing amount of literature to evidence that stress, depression and anxiety can be a significant cause of work absence (Hardy, Woods and Hall, 2003). The cost of this absence in the UK and US is high – estimated to be around £3.8 billion in the UK in 2001 (Thomson and Rick, 2008). A far higher figure is cited more recently in the US – around $150 billion per year. In European countries, Kinder et al (2008) cite the cost of stress to be around 5-10% of GNP each year.

Long term absence due to stress related conditions also has a significant individual and economic cost. Figures from the Department of Work and Pensions in the UK indicate that approximately 42% of individuals claiming incapacity benefit claim due to 'mental or behavioural' disorders (DWP, 2009). This figure has increased by a fifth over the last 5 years (DWP, 2006). The majority of individuals claiming for this reason suffer from depression, anxiety or stress related illnesses (Waddell and Aylward, 2005).

Individuals who have had long term absence from stress related conditions have been shown to be less likely to return to work than individuals who have undertaken long term absences due to medical conditions or injury (Watson Wyatt, 2000).

The National Disability Survey in Ireland (2006) reported that emotional, psychological and mental health at 34% indicated a high prevalence of disability (CSO Ireland, 2008), with 18% of these respondents citing stress as the cause..

1.2 Definition of Stress-Related and Adjustment Disorders

The phrase 'stress' in relation to illness has many different interpretations – "it is confusing, elusive, and heard so often its meaning is frequently distorted and its implications taken for granted" (Arthur, 2005). This protocol is therefore structured into the following sections according to ICD-10 and DSM-IV definitions: Acute Stress

Reaction, Post-Traumatic Stress Disorder (PTSD) and Adjustment Disorders. An additional section on Work Related Stress has been included to incorporate information on a condition which is commonly referred to as stress, but which does not have set ICD-10 or DSM-IV definitions.

These conditions arise as a consequence of acute severe stress or continued psychological trauma. They are unique among mental and behavioural disorders in that they are defined not only by their symptoms, but also by a specific aetiological factor, namely:

- An exceptionally stressful life event, or
- A significant life change leading to continued unpleasant circumstances.

Experiencing a traumatic event will lead to a reaction in the majority of individuals, and a degree of reaction is a normal physiological response to such situations – with increased anxiety and sleep disturbance being the most common effects. Anger, grief, fear or guilt are also common after experiencing a severely traumatic event, and such symptoms can last for 14 days after the event, gradually lessening as time passes. However, in some individuals symptoms persist, and stress-related and post traumatic stress disorders develop (ACPMH, 2007).

Although less severe psychosocial stress ("life events") may precipitate the onset or contribute to the presentation of a very wide range of psychological disorders, the underlying cause may not be a single traumatic event, and the reaction will differ dependent on the individual (ICD-10, 2007). This differs from Acute Stress reaction, PTSD and adjustment disorders which occur as a direct consequence of acute severe stress or continued trauma. Acute Stress Reaction by definition has a short-lived natural history and so does not normally feature in disability assessment; however, it is included in this protocol as it frequently follows stressful events and may precede the development of PTSD and Adjustment Disorders.

There are similarities in the definitions of all stress related conditions between the ICD -10 (WHO, 2007) and DSM – IV-TR (2000). A spectrum of symptoms overlaps between the conditions (Ehlers et al, 2009).

Diagnostic Criteria for each condition are included within the following individual sections.

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2. Normal Reactions to Stress

2.1 Overview

The concept and nomenclature of psychological stress has caused confusion in the past, as 'Stress' has been used both to describe the **events acting on** a person, and also the **psycho-biological response** to these events. The current convention is to describe stressful events and situations as **stressors**, and the adverse or unpleasant effects as **stress reactions**. There is great individual variation as to what constitutes a stressor. Some individuals may find certain situations such as riding a roller coaster pleasurable, whereas others might find the experience extremely unpleasant.

After being exposed to stressors, people may experience a range of physiological and psychological responses.

Psychological protection from, and adaptation to, the effects of the stressor is achieved by using:

- **Coping strategies** (using activities that are mainly conscious) and
- **Mechanisms of defence** (using activities that are mainly unconscious)

An **adaptive** coping strategy is an activity to mitigate the effects by expressing grief, working through problems and coming to terms with situations and learning. Avoidance of stressful situations may be adaptive. If avoidance is carried to extremes the strategy may become **maladaptive.** Other **maladaptive** coping strategies include the excessive use of tranquillising drugs or alcohol, aggression, continued expression of grief and histrionic behaviour, and self-harm.

Mechanisms of defence were originally described by Freud and are hypothetical unconscious psychological mechanisms (Gelder et al, 2009). These are still useful descriptions of the types of behaviours observed in individuals after a stressful event.

- **Repression or denial (exclusion from consciousness of memories and emotions that would cause recurrence of stress);**
- **Regression (adopting behaviours of an earlier stage of development);**
- **Displacement (transferring emotional linkage from a situation or person originally associated with the stressor to another which causes less distress); and**
- **Projection (attributing to another person thoughts and feelings similar to one's own, thereby rendering one's own feelings more acceptable)**.

3. Epidemiology of Stress-Related and Adjustment Disorders

Epidemiological information regarding the conditions covered by this protocol is detailed below. This information has been collated into one section rather than being described against each individual stress-related condition, as it can be seen that there are links between prevalence and incidence rates for the differing conditions.

3.1 Epidemiology of Acute Stress Reactions/Disorders

Little research exists to determine what proportion of individuals develops Acute Stress reactions/disorders from exposure to severe stress.

Incidence rates of between 14-33% of those exposed to severe trauma have been cited (Medical Disability Guidelines, 2009).

Risk factors include exposure to previous traumatic events, a history of psychiatric disorders or depression (Ehlers et al, 2009). Genetic predisposition has also been advanced as a risk factor.

3.2 Epidemiology of Work Related Stress

The true incidence of work related stress is hard to ascertain, as many cases are either self-reported, or not reported at all. Figures indicate however, that this cause of stress is of significant cost to the individual, industry and society.

The Health and Safety Executive in Great Britain, report the following statistics for 2007/2008:

- It is estimated that work-related stress, depression or anxiety affected 442 000 individuals who had worked in the last 12 months in 2007/08
- An estimated 13.5 million lost working days were lost due to work-related conditions
- This represents an estimated average of 30.6 working days lost per affected case and makes stress, depression or anxiety the largest contributor to the overall estimated annual days lost from work-related ill-health in 2007/08
- work-related stress is widespread in the UK working population and is not confined to particular sectors or high risk jobs or industries
- The highest proportion of cases is reported in age groups 35-44 and 45-54 years.
- Higher proportion of cases were reported by males than females, However, this represents a pattern of more male cases being reported by psychiatrists

and more female cases by occupational physicians. Self-reported data for the period 2001/02 to 2006/07 has consistently indicated females to have a statistically significantly higher incidence rate of stress as compared to males.

(Health and Safety Executive, 2009)

It should be noted that stress reported as a result of work may, in fact, be multi-dimensional in its origin and reflect response to stressors manifesting in domestic life and adverse social circumstances (Waddel and Aylward, 2005)

3.3 Epidemiology of Post Traumatic Stress Disorder

Epidemiological studies of PTSD are mainly based on data from the United States or Australia regarding adult PTSD sufferers (Ehlers et al, 2009; NCCHM, 2007)

Surveys of the general population indicate that PTSD affects about 1 in 12 adults at some time in their life, equivalent to 15-24% of those exposed to traumatic events (Breslau, 2001). Although exposure to trauma is reported as being lower in females, the female to male lifetime prevalence of PTSD is often reported as being higher, partly because women experience events that are more likely to lead to PTSD (Kessler et al, 1995)

3.3.1 Incidence of stressful events

Studies on general populations have shown a lifetime likelihood of exposure to a severely stressful event of between 51% and 97% of the population, depending on the type of population sample. The lifetime likelihood of any individual being subjected to at least one severely stressful event is therefore high. It is especially high in certain occupations such as fire, police, ambulance, and military personnel (Ehlers et al, 2009).

3.3.2 Incidence of PTSD symptoms following stressful events

PTSD symptoms are moderately common following road traffic accidents (11% of RTA cases at 3 months post-accident, in a study of road accidents in Oxford) (Hobbs et al, 1996).

PTSD-type symptoms are very common following severely stressful incidents such as rape. Normally there is a rapid reduction in symptom severity over a few months (Rothbaum and Foa, 1993). At two weeks, 94% of victims fulfil the symptom criteria for PTSD, (but not the duration criterion and so would be classified as Acute Stress Disorder at this stage), but this figure falls to 65% at four weeks, (the time at which duration criterion for PTSD is met), 40% at 12 months, and 15% long-term.

The lifetime prevalence of PTSD in Western countries appears to be about 8% (Kessler et al, 1995). The US National Co-morbidity Survey estimates around 10% for women, and 5% for men. In some populations, (concentration camp survivors, refugee victims of civil wars, etc), the prevalence is much higher (Kessler et al, 1995).

PTSD can occur at any age and may affect children who have been exposed to traumatic events.

3.3.3 Types of Traumatic Events

The types of traumatic events which are more likely to result in PTSD (Gore, Allen and Richards, 2008; Ehlers, 2009, NCCMH, 2007) are:

- Combat exposure, military service
- Violence (domestic or criminal)
- Rape or incest
- Childhood physical or mental abuse

Events less likely to cause PTSD (i.e. less than 10% chance) include:

- Natural Disasters
- Accidents
- Witnessing death or injury
- Fire

If occurring as more than a single incident, the loss of a close family member, or a road traffic accident can have considerable post traumatic effect (Ehlers, 2009)

4. Acute Stress Reaction/Disorders

Although not a major cause of functional impairment or disability, Acute Stress Reactions/Disorders are covered in brief below.

4.1 Definition and Diagnostic Criteria for Acute Stress Reactions/Disorders

The New Oxford Textbook of Psychiatry (2009) defines Acute Stress Reactions as the 'transient reaction to exceptional physical and/or mental stress'. ICD-10 (WHO, 2007) states there will be an initial period of 'daze' which may be followed by disassociation from the situation or agitation (flight reaction). Symptoms will appear with in minutes of the precipitating event, and last for 2-3 days.

ICD-10 states the diagnosis of Acute Stress Reaction can only be made in a normal individual who does not have an apparent concurrent mental disorder (within last 3 months) - except generalised anxiety disorder or personality disorder. .

The stressor may involve a serious threat to the security or physical integrity of the individual or that of a loved person(s), (e.g. natural catastrophe, accident, battle, criminal assault, rape). It may be an unusually sudden and threatening change in the social position and/or network of the individual, such as multiple bereavements or a domestic fire.

Characteristically Acute Stress Reaction has two components: - physiological, and psychological.

- Physiologically, autonomic lability causes tachycardia, flushing, and sweating followed by pallor, piloerection, and perhaps involuntary urination, diarrhoea, vomiting and even syncope. Hyperventilation may occur.
- Psychologically, the individual may become disorientated and dazed, with an acute reduction in the ability to complete tasks. Subsequently they may become further withdrawn – even stuporose – or they may become agitated, vociferous, and over-active.

The condition subsides within hours, or two or three days at the most.

It should be noted that the DSM-IV-TR (2000) classification system states similar, although slightly different criteria for the diagnosis of acute stress disorder, stating a diagnosis should be made on the following criteria:

- The person has been exposed to a traumatic event in which both of the following were present:
  - The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.

  - The person's response involved intense fear, helplessness, or horror.

- Either while experiencing or after experiencing the distressing event, the individual has three (or more) of the following dissociative symptoms:
  - a subjective sense of numbing, detachment or absence of emotional responsiveness
  - a reduction in awareness of his or her surroundings (e.g., 'being in a daze')
  - derealisation
  - depersonalisation
  - Dissociative amnesia (i.e., inability to recall an important aspect of the trauma).
- The traumatic event is persistently re-experienced in at least one of the following ways:
  - Recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.
  - Marked avoidance of stimuli that arouse recollections of the trauma (e.g., thoughts, feelings, conversations, activities, places or people).
- Marked symptoms of anxiety or increased arousal (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness).
- The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or impairs the individual's ability to pursue some necessary tasks, such as obtaining necessary assistance or mobilising personal resources by telling family members about the traumatic experience.
- The disturbance lasts for a minimum of two days and a maximum of four weeks and occurs within four weeks of the traumatic event.
- The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition, is not accounted for by brief psychotic disorder, and is not merely an exacerbation of a pre-existing axis I or axis II disorder.

4.2 Aetiology

Factors which affect how an individual responds to a stressor, and if they develop

acute stress reactions or disorders include:

- Severity of event
- Proximity of event
- Duration of event
- Psychological factors – childhood experience, family history, personality type
- Existence of pre-existing mental health conditions

4.3 Differential Diagnosis for Acute Stress Reactions/Disorders

- Mental Disorder Due to a General Medical Condition
- Substance-Induced Disorder
- Brief Psychotic Disorder
- Major Depressive Episode
- Post-traumatic Stress Disorder
- Adjustment Disorder
- Malingering (Illness deception).

4.4 Treatment

Acute Stress reaction/disorder is usually treated using a psychological based treatment, as little is known about which pharmacological interventions are effective (Elhers et al, 2009):

- **Psychological Treatments**:
  - Cognitive Behaviour Therapy – shown to reduce the progression of ASD to PTSD by 10-20% (Medical Disability Guidelines)
  - Debriefing is now thought to be ineffective in preventing PTSD (NICE, 2005).
- **Psychopharmacological Treatments**
- **Information and Self Help Booklets** (evidence indicates that these are ineffective in preventing ASD progressing to PTSD)

4.5 Prognosis of Acute Stress Reaction/Disorder

The prognosis for Acute Stress Disorder is good as the majority of individuals recover completely. However, there is a significant link with the development of PTSD.

Factors affecting recovery can include:

- Experience of previous trauma
- Poor or marginal levels of functioning prior to the traumatic event
- Substance or Alcohol abuse
- Presence of other psychiatric disorders
- Denial of event
- Settling of insurance claims
- Response to psychotherapy
- Adverse socio-domestic circumstances.

5. Work Related Stress

The Health and Safety Executive in the UK defines work related stress as being 'the process that arises where work demands of various types and combinations exceed the person's capacity and capability to cope.' A similar definition is stated by the European Agreement on Work Related Stress (EUTC, UNICE, UEAPME and CEEP, 2008) which states 'stress as a state which is accompanied by physical, psychological or social complaints or dysfunction and which results from individuals feeling unable to bridge a gap with the requirements or expectations placed on them.' Whilst individuals may cope with short term pressure, longer term pressures may have adverse effects, but the signs and symptoms of such effects may vary widely from individual to individual.

Work Related stress is a significant cause of illness and disease and is also linked with high levels of absence, high attrition rates and increased organisational underperformance - including human error.

Whilst a well recognised condition with a considerable literature and evidence base, there is no actual DSM-IV or ICD-10 diagnosis for this condition at present. Although a commonly used psychiatric diagnosis, its defining features are not clear-cut. In the ICD-10 coding schema, the term Z73-'problems related to life-management difficulty') is probably more appropriate for work-related stress, as other terms related to stress carry specific diagnostic criteria that are not appropriate for work related stress. There have been calls for a new diagnostic code to be included in the DSM-IV coding schema for 'gradual onset stress' which would cover work related stress.

5.1 Risk factors for Work Related Stress

The following risk factors have been collated from a variety of sources, including the UK Health and Safety Executive and the UK Work National Work Stress Network and Kinder et. al. (2009).

Work Practices

- Perceived lack of ability exert any control or influence over the demands placed upon oneself; inadequate time to complete tasks to standard expected
- Lack of, or unclear, job description or management structure
- Lack of certainty regarding job security / career prospects, lack of recognition of contribution
- Contract or temporary work
- Lack of organisational leadership
- Economic factors – e.g. cuts in funding leading to increased pressure/workload

- Culture of long/excessive hours
- No opportunity to voice complaints or no recognition that complaints have been made.
- Heavy responsibilities with no authority or decision making discretion

Pressure

- Perception that pressures, piling one on top of another, are unremitting or prolonged

Conflicting demands

- Harassment or bullying
- Prolonged conflict between individuals
- Exposure to prejudice - age, gender, sexuality, race, ethnicity or religion

Management techniques

- Introduction of new or changed management techniques
- Unsatisfactory relationships with line-manager

Environment and technology

- Unpleasant or hazardous working conditions
- Technology controlling workers or unremitting technology, for example 'dialling' systems used in telephone banking where there are no gaps between calls and staff have no control, or inappropriate use of productivity software to micromanage employees

5.2 Diagnosis of Work Related Stress

The following signs and symptoms may be shown by an individual with work related stress (HSE, 2009). These, of course, are general manifestation of stress reactions irrespective of their cause.

Behaviour

- Insomnia
- Change of eating habits
- Increase in smoking or alcohol consumption;
- Avoidance of social activity

- Sexual issues.

Physical symptoms

- Tiredness
- Indigestion and nausea
- Headaches
- Aching muscles
- Palpitations.

Mental Symptoms

- Indecision
- Lack of concentration
- Poor memory
- Feelings of inadequacy
- Low self esteem.

Emotional Symptoms

- Feelings of being irritable or angry
- Anxiety
- Numbness
- Hypersensitivity
- Feeling drained and listless.

5.3 Treatment for Work Related Stress

As work related stress is the response to different triggers for each individual, treatment centres on the physical and mental symptoms exhibited by the individual.

Prevention of re-occurrence should also feature as part of the treatment. There are a number of strategies that both individuals and employing organisations can take to avoid work related stress with some suggested actions listed below (Labour Relations Commission (Ireland), 2007):

- Management and communication measures such as clarifying the workplace's objectives and the role of individual employees, ensuring adequate management

- Support for individuals and teams, matching responsibility and control over work
- Improving work organisation and processes, working conditions and environment
- Training managers and workers to raise awareness and understanding of stress, its possible causes and how to deal with it, and/or to adapt to change
- Provision of information to and consultation with workers and/or their representatives in accordance with European and Irish legislation, collective agreements and practices.

Self Help

There are a number of self help techniques that can be used by individuals to cope with work related stress, ranging from simple techniques such as concentrating on prioritisation, to behavioural techniques such as relaxation therapies. In addition, individuals should ensure they have adequate exercise, reduce alcohol consumption and smoking, and eat a healthy diet.

6. Post Traumatic Stress Disorder (PTSD)

Although Post Traumatic Stress Disorder (PTSD) was only included in DSM-III in 1980, descriptions of the behaviour of survivors of stressful historical events indicate that the condition was known previously. Examples include the development of psychological symptoms in response to severe traumatic stress was noted in the two World Wars, (e.g. the recognition of 'shell-shock' in World War I and the recognition that soldiers returning from World War II were noted to have "Irritability, fatigue, difficulties falling asleep, startle reaction, ...nightmares and battle dreams, phobias, personality changes, and increased alcoholism".

6.1 Definition and Diagnostic Criteria for PTSD

In terms of diagnostic classification, the events which precipitate PTSD (Stressors) differ. ICD-10 uses a broad classification 'stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone' (WHO, 2007), whereas DSM-IV-TR is more specific in stating that PTSD requires that the person 'experienced, witnessed or is confronted with' events involving actual or perceived threat of death or serious injury (Ehlers, 2009).

It should be noted that much of the literature and research regarding PTSD has used the stricter DSM-IV-TR definition, rather than the broader ICD-10 diagnostic criteria (NCCMH, 2007)

6.1.1 Diagnostic Criteria for PTSD (ICD-10)

- The patient must have been exposed to a stressful event or situation (either short or long lasting) of exceptionally threatening or catastrophic nature which would likely cause pervasive distress in almost anyone.
- There must be persistent remembering or reliving of the stressor in intrusive flashbacks, vivid memories or recurring dreams, or in experiencing distress when exposed to circumstances resembling or associated with the stressor.
- The patient must exhibit an actual or preferred avoidance of circumstances resembling or associated with the stressor.
- Either of the following must be present-:
  - Inability to recall either partially or completely some important aspect of the period of exposure to the stressor, OR
  - Persistent symptoms of increased psychological sensitivity and arousal shown by any two of the following:
    - Difficulty falling or staying asleep
    - Irritability or outbursts of anger

- Difficulty concentrating
- Hypervigilance
- Exaggerated startle response

Criteria 2, 3 and 4 must all arise within 6 months of the period of stress. The diagnostic guidelines show that the disorder should only be diagnosed after six months if the symptoms are typical and do not constitute one of the other psychiatric diagnoses such as phobic conditions, other anxiety disorders, depression etc.

6.1.2 Diagnostic Criteria for DSM-IV-TR (2000)

A. The person has been exposed to a traumatic event in which both of the following were present:

(1) The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others

(2) The person's response involved intense fear, helplessness, or horror. **Note:** In children, this may be expressed instead by disorganized or agitated behaviour.

B. The traumatic event is persistently re-experienced in one (or more) of the following ways:

(1) Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. Note: In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.

(2) Recurrent distressing dreams of the event. Note: In children, there may be frightening dreams without recognizable content.

(3) Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). Note: In young children, trauma-specific re-enactment may occur.

(4) Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

(5) Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

(1) Efforts to avoid thoughts, feelings, or conversations associated with the trauma

(2) Efforts to avoid activities, places, or people that arouse recollections of the trauma

(3) Inability to recall an important aspect of the trauma

(4) Markedly diminished interest or participation in significant activities

(5) Feeling of detachment or estrangement from others

(6) Restricted range of affect (e.g., unable to have loving feelings)

(7) Sense of a foreshortened future (e.g., does not expect to have a career, marriage, children or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

(1) Difficulty falling or staying asleep

(2) Irritability or outbursts of anger

(3) Difficulty concentrating

(4) Hypervigilance

(5) Exaggerated startle response

E. Duration of the disturbance (symptoms in criteria B, C, D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Criteria also exist to allow the duration to be specified:

- **Acute**: if duration of symptoms is less than 3 months
- **Chronic**: if duration of symptoms is 3 months or more
- **With Delayed Onset:** if onset of symptoms is at least 6 months after the stressor

6.1.3 Partial PTSD

There is some literature to suggest that considerable functional impairment and disability can be experienced by individuals who meet some of the criteria detailed above for PTSD, but not all. The existence of some but not all symptoms is a risk factor for developing full PTSD in the future (Ehlers, 2009)

6.2 Aetiology of PTSD

The development of PTSD is thought to be facilitated by an atypical biological

response to trauma which in turn leads to a maladaptive psychological state (Shalev, 2001). This is supported by the following observations:

6.2.1 Neurophysiological impairment

Abnormalities of psychophysiological responses have been shown in PTSD. Traumatised patients show increased autonomic reactions to specific stimuli related to the original stressor. They also show failure of habituation to an acoustic startle response and have elevated urinary catecholamines.

Cortisol levels in normal subjects rise after a stressful event. In subjects who subsequently develop PTSD, the cortisol response is significantly lower than in those who develop major depression and those who do not develop any psychiatric disorder post-trauma. The rise in cortisol levels is also lower after stressor events in people who have had previous trauma (Yehuda, 2001).

Infant rats, if chronically stressed by maternal deprivation, show marked endocrine changes in adulthood with increased physiological and behavioural responsiveness to stressors.

6.2.2 Neuroanatomical impairment

Recent developments of brain imaging techniques have shown that there are abnormalities affecting the hippocampus, medial prefrontal cortex, and visual association cortex in patients with PTSD (Ehlers, 2009). It is not known whether these changes predate the development of PTSD or not.

6.2.3 Individual risk factors

A past history of mental illness and previous traumatic experiences are risk factors that appear to sensitise individuals to the development of PTSD.

In adults exposed to trauma, risk factors include (Brewin, Andrews and Valentine, 2000):

- Childhood abuse
- Family psychiatric history
- Low intelligence
- Lack of social support
- “Life stress”.

6.2.4 Risk factors related to the type of stressor

The types of stressors commonly causing PTSD are:

- Natural disasters: earthquakes, volcanic eruptions, floods, forest fires etc.

- Transport accidents: rail crashes, ships sinking, road traffic accidents, aircraft crashes etc.
- Armed conflict: combat, bombing, imprisonment, torture and mutilation, rape etc.
- Domestic: physical and sexual abuse, victims of violent crimes etc.

Some stressors are more likely to result in PTSD than others. Proximity to the stressor, and whether the stressor is of natural or man-made origin alter the likelihood of the development of PTSD.

Rape, disfiguring injury and torture, and similar stressors are more likely to cause PTSD than natural disasters. Helplessness and lack of situational control appear to increase the likelihood of the development of the condition. Women suffering an incident of interpersonal violence, (physical or sexual assault, witnessed homicide of a close friend or relative), are about 3 times more likely to develop PTSD than women reporting other types of severe stressors. In men, combat exposure, and witnessing someone being injured or killed are common stressors related to PTSD.

Rape, sexual assault, and childhood physical abuse are common PTSD-inducing stressors in women.

6.3 Diagnosis

Diagnosis of PTSD is sometimes difficult, as the sufferer may be reticent in describing their symptoms to avoid recalling the traumatic event. This may be due to avoidance behaviour, “survivor guilt”, shame, or loss of trust. Direct closed questioning about symptoms may be needed.

Physiological reactivity in response to trauma cues is a diagnostic criterion for PTSD. Psychophysiological assessments that measure heart rate, blood pressure and skin conductance in response to trauma cues have been used to aid diagnosis. Although an effective aid to diagnosis, they are not used routinely in clinical practice.

Rating scales, (such as the 8-item treatment outcome post-traumatic stress disorder scale (TOP-8) and the Davidson trauma scale), may also facilitate the diagnosis of PTSD and monitor the response to treatment (Davidson, 1999).

6.4 Differential Diagnosis

- Physical trauma e.g. head injury
- Mental Disorder Due to a General Medical Condition
- Substance-Induced Disorder
- Brief Psychotic Disorder
- Major Depressive Episode

- Adjustment Disorder
- Borderline Personality Disorder
- Dissociative Disorder

6.5 Co-morbidity

Co-morbidity with other psychiatric illness is very common in PTSD. Clinical and epidemiological studies have shown figures of about 80% of persons with PTSD having a previous or concurrent psychiatric disorder. Common conditions (in a study of Israeli soldiers) are (Solomon, 2000):

- Major depressive disorders (30-50% of PTSD sufferers have concurrent depression)
- Alcohol related disorders
- Substance misuse disorders (the incidence of alcohol and substance misuse is double that of the general population)
- Generalised Anxiety Disorder
- Phobias
- Somatisation Disorder
- Obsessive Compulsive Disorder
- Mania.

Epidemiological studies show that the PTSD is most likely to be the primary disorder with the co-morbid disorders developing later. However the interplay between conditions is complex, with data showing that a history of a pre-existing depressive disorder may increase the severity of post-traumatic morbidity (Shalev, 2001).

Sufferers with PTSD tend to have more somatic symptoms and present more frequently to emergency departments and physicians.

This complex of co-morbidity in post-traumatic disorders is so common that some psychiatrists have argued for a so-called “trauma spectrum” of disorders.

Disability assessors sometimes use the term “post-traumatic psychological dysfunction” to encompass all the effects of psychological trauma without attaching a specific diagnostic label to the condition.

6.6 Traumatic Grief

Traumatic Grief (TG) is a term used to describe complicated pathological bereavement reactions that have many similarities with PTSD. For a significant

minority (20%) of bereaved individuals, the impact of the loss appears to overwhelm their coping capacity, and persistent phenomena of “numbness”, re-experiencing, and irritability occur to such an extent that they chronically interfere with social and occupational functioning.

Although the precipitating stressor cannot be regarded as severe as the PTSD definition stressor, TG has many symptomatic similarities to PTSD and can be thought to fall within the category of trauma spectrum disorders.

6.7 Treatment of PTSD

Prevention, training and pre-selection of individuals likely to be exposed to severe stressors

By analysing individual risk factors, (see **4.3.3 Aetiology**), and protecting susceptible individuals from severe stressors, there is a possibility of reducing the likelihood of the development of PTSD.

6.7.1 Immediate treatment

It was thought that counselling following a severely stressful event (“debriefing”) may be beneficial and therefore pro-active treatment of this type has been recommended.

However, research shows that this is ineffective in preventing PTSD or other post-traumatic psychopathology. There is a possibility that debriefing may cause further harm (Wessley, Rose and Bisson, 1998, Mayou, Elhers and Hobbs, 2000).

It was also believed that early intervention with psychoactive drugs following a severely stressful incident reduces the likelihood of onset of PTSD or other post-traumatic psychopathology. In the past alcohol, barbiturates and benzodiazepines have been given during Acute Stress Reactions. A controlled trial has failed to show any benefit from treatment with benzodiazepines. The study showed that administration of benzodiazepines may even have a deleterious effect (Gelpin et al, 1996).

6.7.2 Psychosocial treatments

Reports on the efficacy of psychodynamic interventions are equivocal. The majority of studies were not well controlled.

There are a variety of treatments available:

- Hypnotherapy: may offer some help for post-trauma suffering. Studies lack methodological rigour.
- Psychodynamic psychotherapy: there are some reports that trauma victims may worsen during treatment. Results are equivocal.
- Cognitive-behavioural therapy (CBT): this involves prolonged repeated

imaginary exposure to the stressful event combined with cognitive therapy to alter thinking patterns. This therapy appears to have the most evidence of efficacy, especially if combined with selective serotonin reuptake inhibitor (SSRI) drug therapy (Van Etten and Taylor, 1998).

- Systematic desensitisation, including Eye Movement Desensitisation and Reprocessing (EMDR): these techniques involve exposing the individual to the memory or simulation of the stressful event, combined with relaxation and/or distraction techniques. In EMDR, the patient imagines the trauma at the same time as eye-tracking moving fingers or lights. Results are varied and may represent differences in victim groups and therapy technique.

Overall there appears to be evidence that CBT is the most effective psychosocial therapy for PTSD.

6.7.3 Drug treatments for PTSD

The neurophysiological impairments found in PTSD indicate that there is a theoretical basis for drug treatment of PTSD. However, the common prevalence of co-morbid psychiatric disorders and pre-existing risk factors in the aetiology of the condition complicate the interpretation of efficacy of various drug treatments.

1. Selective Serotonin Reuptake Inhibitors (SSRIs): several trials have demonstrated that SSRIs improve symptoms in patients with PTSD, particularly hyper-arousal symptoms. Studies with paroxetine show slow improvement in symptoms, although pre-existing childhood trauma significantly reduces improvement (Marshall et al, 1998). Benefits have also been shown with fluoxetine. Patients with co-existing depression may be particularly responsive to antidepressant therapy (Davidson and Connor, 1999).

2. Other agents: tricyclic antidepressants (TCADs), monoamine oxidase inhibitors (MAOIs), and a variety of agents such as propranolol and clonidine have been shown to improve symptoms of sleep disturbance and hyperarousal.

Overall, a combination of drug and CBT treatment seems to reduce the duration of symptoms in a majority of patients, although the number that remain significantly symptomatic in the long term is not reduced.

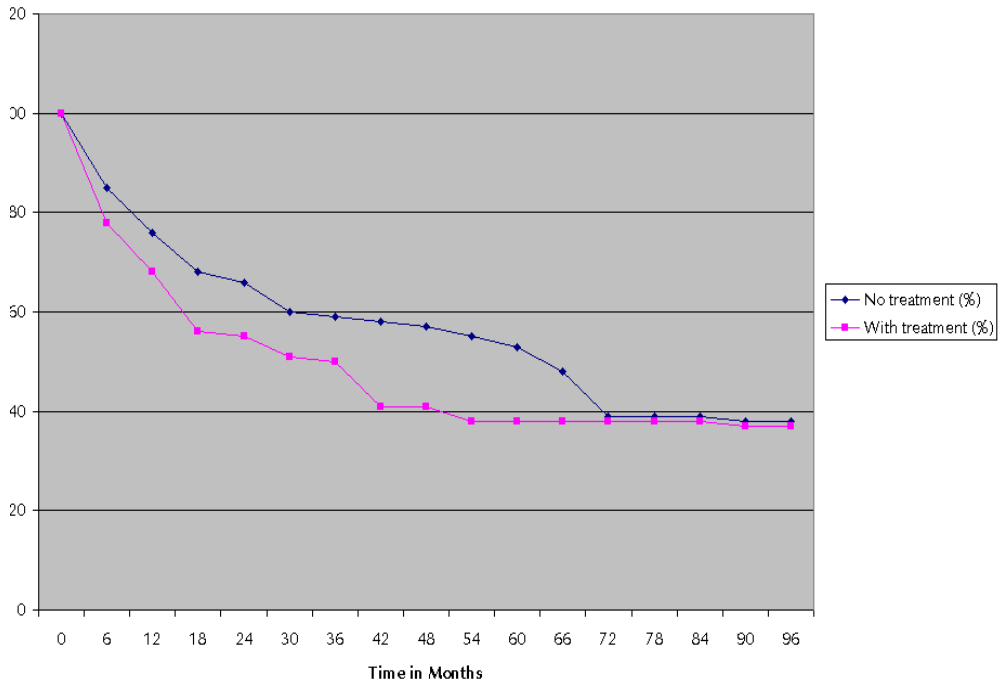
6.8 Prognosis

As can be seen from the following graph, PTSD has a slow natural recovery time over a period of about six years, after which time the condition is likely to remain chronic in about 40% of cases (Kessler et al, 1995). Treatment appears to accelerate recovery time although the long-term chronicity remains about 40% with or without treatment.

The slow recovery times show that, for purposes of disability assessment, two-year

reassessments, up to a 6-year maximum, are indicated.

Disability assessments performed at intervals of less than 2 years are unlikely to show much change, and after a 6-year interval, those chronically disabled are likely to remain so.



Graph of PTSD symptoms over time (derived from Nutt et al, 2000).

7. Adjustment Disorders

7.1 Overview

Adjustment Disorders (AD) are stress-related conditions, in which the individual mal-adapts to the stressor. The condition is time limited until either the stressor is reduced or removed, or until the individual adapts to the stressor in a different manner (Strain et al, 2009). The stressor can be an adverse life change or life event or a continuous stressor – for example, the ending of a relationship, marital issues, issues with business, living in an area high in crime or anti-social behaviour, or suffering from a chronic medical condition.

It should be noted that there is a scarcity of research, literature and evidence regarding the cause, epidemiology and treatment of adjustment disorders, despite the common use of the diagnosis (Casey, 2008; Laugharne et al, 2009)

An Adjustment Disorder is a more prolonged disturbance than an Acute Stress Reaction and, by definition, the response is quantitatively more severe than would normally be expected given the nature of the stressor. The stressor may be an adverse event that has affected the individual's group or community as well as the individual themselves.

Adjustment Disorders lie on the threshold midway between normal behaviour and major psychiatric morbidity. They present diagnostic dilemmas in that they are poorly defined, overlap with other diagnostic groupings and have indefinite symptomatology.

This vagueness of diagnosis is also seen as one of its strengths, allowing Adjustment Disorder to serve as a 'temporary' diagnosis before the definitive psychiatric morbidity becomes more apparent. For the disability analyst this means that Adjustment Disorder can be a 'melting pot' of transient psychiatric morbidity, combined with early stage affective disorders.

Seven types of Adjustment Disorder are listed in ICD-10 (World Health Organisation, 2007), and 6 types are listed in DSM-IV (American Psychiatric Association, 2000). Both classifications divide AD according to symptomatology.

7.1.1 DSM-IV Adjustment Disorder Subtypes:

- Adjustment disorder with depressed mood
- Adjustment disorder with anxiety
- Adjustment disorder with mixed anxiety and depressed mood
- Adjustment disorder with disturbance of conduct
- Adjustment disorder with mixed disturbance of emotions and conduct
- Adjustment disorder unspecified.

7.1.2 ICD-10 Adjustment Disorder Subtypes:

- Adjustment disorder with brief depressive reaction (not exceeding 1 month)
- Adjustment disorder with prolonged depressive reaction (up to 2 years)
- Adjustment disorder with mixed anxiety and depressive reaction
- Adjustment disorder with predominant disturbance of other emotions
- Adjustment disorder with predominant disturbance of conduct
- Adjustment disorder with mixed disturbance of emotions and conduct
- Adjustment disorder with other specified predominant symptoms

7.1.3 DSM-IV Definition of Adjustment Disorder

A. Behavioural or emotional symptoms must develop in response to an identifiable event(s) and occur within three months of the onset of that event(s) / stressor(s).

B. These behaviours or symptoms must be clinically significant as evidenced by at least one of the following:

1. After exposure to the event(s) / stressor(s), the behavioural or emotional symptoms seem in excess of what would be normally expected.

2. Significant social, functioning, or occupational impairment..

C. The disturbance does not meet the criteria for another specific Axis I disorder or is not part of a pre-existing Axis I or Axis II disorder.

D. The behavioural or emotional symptoms do not represent Bereavement.

E. Once the event(s) / stressor(s) has terminated, the symptoms do not last more than an additional six months.

7.1.4 ICD-10 Definition of Adjustment Disorder

A. The development of emotional or behavioural symptoms in response to an identifiable stressor(s) occurring within three months of the onset of the stressor(s).

B. These symptoms or behaviours are clinically significant as evidenced by either of the following:

(1) marked distress that is in excess of what would be expected from exposure to the stressor

(2) Significant impairment in social or occupational (academic) functioning

C. The stress related disturbance does not meet the criteria for another specific Axis I disorder and is not merely an exacerbation of a pre-existing Axis I or Axis II disorder.

D. The symptoms do not represent Bereavement.

E. Once the Stressor (or its consequences) has terminated, the symptoms do not persist for more than an additional six months.

7.1.5 Duration

In order to diagnose an Adjustment Disorder, the onset of symptoms should occur as a result of the stressful event or change in circumstances within:

- One month in the ICD-10

or

- Three months in DSM-IV

DSM-IV subdivides Adjustment Disorder into Acute (less than 6 months duration) and Chronic (more than 6 months duration). However, the ICD-10 diagnostic classification states that except in prolonged depressive reaction the symptoms of adjustment disorder do not persist longer than 6 months once the stress prompting the reaction has been removed (WHO, 2007).

Adjustment Disorder may remain chronic if the adverse life circumstances continue.

7.2 Aetiology

Little is written about the aetiology of Adjustment Disorders, however individual vulnerability is thought to play an important role.

Pre-existing personality, coping mechanisms and previous experiences also influence the susceptibility of an individual to developing adjustment disorders.

7.3 Diagnosis

Adjustment Disorders lie on the threshold between normal behaviour and major psychiatric morbidity. They present diagnostic dilemmas in that they are poorly defined, overlap with other diagnostic groupings and have indefinite symptomatology.

Symptoms may include:

- Depressed Mood.
- Anxiety.

- Mixed Anxiety and Depression.
- Occasionally individuals may be liable to dramatic behaviour or violent outbursts.
- Conduct disorders (aggressive or anti-social behaviour) may be a feature.

Conduct disorders are more common in children and adolescents, whereas adults have more depressive symptomatology. Anxiety symptoms are frequent at all ages (Strain et al, 2009).

Adjustment Disorder, especially if chronic, can cause diagnostic difficulty as the condition may be interpreted as depression, anxiety, or a behavioural disorder, without taking into account the initial and ongoing stressor(s).

7.4 Differential Diagnosis

- Personality Disorders;
- Not Otherwise Specified Disorders (e.g., Anxiety Disorder Not Otherwise Specified);
- Posttraumatic Stress Disorder, and Acute Stress Disorder;
- Psychological Factors Affecting Medical Condition; Bereavement;
- Non-pathological Reactions to Stress.

7.5 Co-morbidity

Substance abuse is common in those with a diagnosis of Adjustment Disorder (Strain et al, 2009).

7.6 Treatment

The treatment of Adjustment Disorders focuses on psychotherapeutic and counselling interventions to:

- Expose the concerns and conflicts that the patient is experiencing,
- Identify means of reducing the stressor,
- Clarify the patient's perspective on the adversity,
- Enhance the patient's coping skills, especially if a stressor cannot be reduced or removed,
- Enable a system of supportive relationships.

- Counselling, psychotherapy, crisis intervention, family therapy and group treatment are utilised to encourage the verbalisation of fears, anxiety, rage, helplessness and hopelessness to the stressors imposed on the patient.

Evidence is inconclusive as to the effectiveness of pharmacological therapies in the treatment of adjustment disorder (Strain, Kipstein and Newcorm, 2009), although for individuals with severe life stress(es) formal psychotherapy combined with benzodiazepines may be of benefit.

7.7 Complications

Adjustment disorders may be associated with:

- Alcohol or substance abuse or use
- Somatic complaints
- Suicide attempts or, occasionally, suicide (Note – there is some debate regarding this point – adjustment disorders are normally considered a low-level diagnosis with individuals continuing to function relatively well. There is thought that should suicidal tendencies be exhibited by an individual, then adjustment disorder may not be an appropriate diagnosis).
- The course of illnesses in individuals with a pre-existing mental or medical illnesses may be complicated or prolonged (e.g. increased length of stay)

7.8 Prognosis of Adjustment Disorders

With appropriate treatment, the prognosis for individuals with adjustment disorders is good.

Adjustment disorders generally occur within a short period of time following the stressor and, by definition, should last no longer than 6 months after the stressor or its consequences have ended.

Individuals generally return to normal functioning within a few months.

8. Information Gathering at the In Person Assessment

Claimant presenting with disability caused by reaction to an abnormal degree of stress can be difficult to assess and validate. Post Traumatic Stress Disorder is perhaps the most extreme but least common condition in this group. Whilst much of the advice in this section is directed towards helping the assessor to evaluate PTSD, the general principles are equally applicable to the other stress related conditions.

8.1 Assessing the Claimant

Documentary evidence is frequently unhelpful in the functional assessment of post-traumatic states, and the Typical Day History, together with a Mental State Examination give the evidence required to support an opinion about the degree of disability. Informal observations during the Mental State Examination showing irritability, hypervigilant behaviour, poor concentration, and an exaggerated startle response may be helpful in corroborating the history of functional limitation from the Typical Day.

A careful and empathic interview will reveal the extent of variability and functional limitation.

The common co-morbid disorders are:

- Major depressive disorders
- Alcohol related disorders
- Substance misuse disorders
- Generalised Anxiety Disorder
- Phobias.

The co-morbid conditions associated with PTSD may contribute more to disability than the PTSD itself.

Cases of Adjustment Disorder presenting for disability assessment are likely to be chronic cases. The primary diagnosis given in the documentary evidence may be Depression, Anxiety or a Personality/Behavioural disorder. Careful history taking may reveal the existence of Adjustment Disorder with an initial stressor in a relatively normal pre-morbid functional state.

8.2 Mental Health Assessment

Symptoms of PTSD cause considerable distress and can significantly interfere with social, educational and occupational functioning. It is not uncommon for PTSD sufferers to lose their jobs, either because re-experiencing symptoms, sleep and

concentration problems make regular work difficult, or because they are unable to cope with reminders of the traumatic event they encounter at work. The resulting financial problems are a common source of additional stress, and may be a contributory factor leading to extreme hardship such as homelessness.

The disorder has adverse effects on the sufferer's social relationships, leading to social withdrawal. Problems in the family and break-up of significant relationships are not uncommon.

Sufferers may also develop further, secondary psychological disorders as complications of the PTSD. The most common complications are:

- substance use disorders: PTSD sufferers may use alcohol, drugs, caffeine or nicotine to cope with their symptoms, which may eventually lead to dependence
- depression, including the risk of suicide
- other anxiety disorders, such as panic disorder, which may lead to additional restrictions in the sufferer's life (for example, inability to use public transport).

For further information about the specific aspects of mental health assessment in relation to these disorders please see the respective protocols.

Other possible complications of PTSD include somatisation, chronic pain and poor health (Schnurr & Green, 2003). Sufferers from PTSD are at greater risk of medical problems, including circulatory and musculoskeletal disorders, and have a greater number of medical conditions than people without PTSD (Ouimette et al, 2004).

The disabling effects of these conditions are very varied because of:

- the common prevalence of co-morbid psychiatric conditions in PTSD, and
- the polysymptomatic presentation of Adjustment Disorder.

Impairment of work performance due to problems with concentration, memory and increased irritability has been recorded in soldiers suffering from PTSD (Solomon, 2001).

There is a widely held belief that PTSD is inherently more disabling than other post-traumatic psychopathological conditions such as chronic Adjustment Disorder with phobic anxiety and mood disorder. Civil compensation for cases with a PTSD diagnosis is likely to be higher than for post-traumatic cases with another psychiatric diagnosis (Judicial Studies Board, 2000). There is no logical evidence that PTSD per se leads to more disability than other post-traumatic psychiatric conditions.

Each case should be assessed individually for disablement.

8.3 Questions for Assessing the Disabling Effects of Stress

- Does the claimant have another mental illness or a personality disorder? **The**

combined disabling effects of multiple illnesses are likely to be severe. The assessment should focus on the most significant condition.

- What was the patient's pre-morbid personality? What was the sequence of developing co-morbid conditions? PTSD is often the primary disorder.

- Is the claimant abusing alcohol or drugs, and are they dependent on them? This is a relatively common scenario in our work as disability analysts, and is likely to increase their level of disability. (See the protocols about ***Alcohol Related Disability*** and ***Substance Use Disorders.***)

- What treatment have they received in the past, and is the claimant currently receiving treatment for their stress-related illness? Psychological treatments are effective in many cases.

- Where is the claimant living? Do they have a home of their own, or are they living in a hostel, at home with their parents, or of no fixed abode? The lack of a safe home may indicate the claimant's life has disintegrated because of their response to stressful situations.

- The claimant's employment history is often useful. It is significant if they have left a job because of work-related stress.

- Have the sources of stress been identified and positive steps taken to deal with them?

8.4 Assessment of Ability/Disability

***The key areas to address in ability/disability assessment medicine relate mainly to functional ability in relation to day to day and workplace activities*.**

The recommended approach to assessing an individual's functional ability is to ask them to describe their average day. Taking a history of a claimant's average day, from the moment they awake to how they sleep, will allow an evaluation of the nature and severity of their disability in relation to simple tasks in terms of comprehension, learning, concentration, memory and motivation. It will also provide an indication of any need for guidance, prompting or supervision. This information along with the other evidence obtained or provided will facilitate an overall assessment of disability in relation to the criteria for various scheme benefits. This analysis stage is covered further in chapter 9 of the protocol.

A number of areas are suggested under the four key headings below that should be explored during the assessment, where relevant, through open questioning and observation.

Completion of tasks

- Answering the phone
- Setting an alarm clock
- Operating domestic appliances
- Reading a magazine or watching TV
- Driving a car
- Hobbies and Interests
- Accidents in the home – hazard awareness.

Daily living

- Rising, washing, dressing
- Care over appearance/Self-Neglect
- Frequent mood fluctuation causing distress or panic
- Need for alcohol early in the day
- Sleep pattern.

Coping with Pressure and Change

- History of Work related stress
- Concerns that work may aggravate illness
- Symptoms of fear and panic
- Avoidance of stressful activities – going out, driving a car
- Effect of changes in routine
- Fatigue/Apathy or Disinterest – effect on activities.

Interaction with People

- Capability for self care

- Irritability/Disruption/Aggression
- Communicating with people
- Fear of going out alone
- Avoidance of the company of other people.

9. Analysis of Effect on Functional Ability

Eligibility to DSP's various Illness-related schemes and the Activation Programme, is determined primarily by the degree of Ability/Disability and its expected duration.

The degree of Ability/Disability assessed, using the following Indicators, can be depicted on the Ability/Disability Profile illustrated below.

9.1 Indicators of Ability/Disability

Normal

- Claimant living independently
- Claimant enjoys contact with family and friends
- No loss of interests or hobbies
- Mental state examination normal

Mild

- Acute stress reactions
- Can travel unfamiliar routes unaccompanied on public transport
- Copes well with attending assessment
- Responded well to therapy

Moderate

- Persistent PTSD symptoms several years after stressor
- Stress-related symptoms co-morbid with other physical or mental disorder
- Avoidant behaviour
- Irritability, hypervigilant behaviour
- Poor concentration, exaggerated startle response.

Severe

- Persistent PTSD symptoms 6 years after stressor
- Associated major depressive illness, alcohol or substance misuse, generalised anxiety disorders.
- Lack of insight and/or poor compliance with management

Profound

- Evidence of self neglect
- History of self harm in the preceding six months
- Recent hospital admission and/or current day hospital treatment
- Supervision by a member of a community mental health team

9.2 Ability/Disability Profile

Indicate the degree to which the claimant's condition has affected their ability in ALL of the following areas.					
	Normal	Mild	Moderate	Severe	Profound
Mental health/Behaviour	☐	☐	☐	☐	☐
Learning/Intelligence	☐	☐	☐	☐	☐
Consciousness/Seizures	☐	☐	☐	☐	☐
Balance/Co-ordination	☐	☐	☐	☐	☐
Vision	☐	☐	☐	☐	☐
Hearing	☐	☐	☐	☐	☐
Speech	☐	☐	☐	☐	☐
Continence	☐	☐	☐	☐	☐
Reaching	☐	☐	☐	☐	☐
Manual dexterity	☐	☐	☐	☐	☐
Lifting/Carrying	☐	☐	☐	☐	☐
Bending/Kneeling/Squatting	☐	☐	☐	☐	☐
Sitting	☐	☐	☐	☐	☐
Standing	☐	☐	☐	☐	☐
Climbing stairs/Ladders	☐	☐	☐	☐	☐
Walking	☐	☐	☐	☐	☐

10. Summary of Scheme Criteria

10.1

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