Diagnosing Mental Disorders
• Discuss the validity and reliability of diagnosis
Objectives

• Recognize the difference between classification and diagnosis

• Describe, evaluate, compare and contrast ICD and DSM as approaches to the classification of abnormal behavior in order to examine their usefulness

• Examine The Composite International Diagnostic Interview (CIDI) as a measure to improve the reliability of the DSM

• Know and understand who the concepts of reliability and validity relate to the classification and diagnosis of abnormal behavior

• Examine the purpose and function of the diagnosis of abnormal behavior and discuss the findings or Rosenhan’s (1973) study

• Consider gender, ethical and cultural considerations in the diagnostic process
Key question...

- Diagnosis
- Classification system
- Main difference between the two?
Key Terms

- **ICD**: (International Classification of Diseases and Related Health Problems): The classification system for medical and mental health problems used by the World Health Organization (WHO).

- **DSM**: (The Diagnostic and Statistical Manual of Mental Disorders): The classification and diagnosis system developed by the American Psychiatric Association (APA).

- **Diagnosis**: is the process of identifying a medical condition or disease by its signs (what the physician sees), symptoms (what the patient says), and from the results of various diagnostic procedures.

  The conclusion reached through this process is called *a diagnosis*.

  Diagnosis is a clinical judgment on the part of the psychiatrist.

- **Classification**: A list of disorders along with descriptions of symptoms and guidelines for making appropriate diagnosis (Comer, 2004). For example, deciding what schizophrenia is as apposed to depression.
Thinking about diagnosis:

Are you too shy?
A recent trend in schools is to diagnose very shy children with “social anxiety disorder”. Not only are young students being diagnosed, but they are being treated too. Shyness is so common among US children that 42 per cent exhibit it. By the time they reach college, up to 51 per cent of men and 43 per cent of women describe themselves as shy or introverted. Psychiatrists say that at least one in eight of these people needs medical attention.

Yet it is debatable whether medical attention is necessary. According to Julie Turner-Cobb at the University of Bath, the stress hormone cortisol is consistently lower in shy children than in their more extroverted peers. The discovery challenges the belief that shyness causes youngsters extreme stress.

GlaxoSmithKline, the maker of Paxil, declared in the late 1990s that its antidepressant could also treat social anxiety and, presumably, self-consciousness in restaurants. Nudged along by a public awareness campaign (“Imagine being allergic to people”) which cost the drug maker more than US $92 million in one year, social anxiety quickly became the third most diagnosed mental illness in the US, behind only depression and alcoholism. Studies put the total number of children affected at 15 per cent—higher than the one in eight whom psychiatrists had suggested were shy enough to need medical help.

Be a critical thinker
1. Why could it be a problem to diagnose shy children with “social anxiety disorder”? Remember to provide evidence to support your answer.

2. Do you think this is a condition that should be treated with medication? Why or why not?
Diagnosis and Classificatory Systems: An Introduction

• The diagnosis of Mental Disorders is difficult

• Issue of drawing the line between what is seen as normal behavior and what is seen as or ‘abnormal’ behavior.

• What five ways of defining what is abnormal has been studied?

  (Deviation from Social Norms, Deviation from Ideal Mental Health, Statistical Infrequency, Failure to function Adequately, Mental illness criteria)

• Those making diagnoses use a combination of these factors when making their diagnosis of mental disorders.

• Classification systems enable distinctions between transient mood and behavior changes due to circumstances and serious long term mental health problems.
When an individual seeks help for a potential mental disorder, how do psychiatrists go about making a diagnosis?

While a doctor looks for signs of disease using X-rays, scanners, or blood tests, as well as observable symptoms, the psychiatrist will often have to rely primarily on the patient’s subjective description of the problem.

**Activity:** Watch the video outlining the diagnostic process.
Diagnosing Mental Disorders

• Diagnosis is accomplished through a formal standardized **clinical interview**—a checklist of questions to ask each patient.

• After the interview, a mental health status examination is completed, based on the clinician’s evaluation of the patient’s responses.

• Today the clinician—often a psychiatrist—uses a standardized diagnostic system.
• Kleinmutz (1967) has noted that there are limitations to this interview process...

• Information exchange may be blocked if either the patient or the clinician fails to respect the other, or if the other is not feeling well.

• Intense anxiety or preoccupation on the part of the patient may affect the process.

• A clinician’s unique style, degree of experience, and the theoretical orientation (eg. Cognitive or biological psych) will definitely affect the interview.
In addition to interviews, other methods can be used to assist with diagnosis. These include:

• direct observation of the individual’s behaviour
• brain-scanning techniques such as fMRI and PET (especially in cases such as schizophrenia or Alzheimer’s disease)
• psychological testing, including personality tests (e.g. MMPI-2) and IQ tests (e.g. WAIS-R).
The Two Major Classification Systems

DSM

ICD

What do the acronyms stand for?

These classification systems are constantly being revised, mental disorders are added, deleted and reorganized in the light of new research evidence.
The DSM & ICD

The two major classification systems used by western psychiatrists today, the DSM DSM-IV *Diagnostic and Statistical Manual of Mental Disorders*, (American Psychiatric Association, 1994) and the ICD-10 *International Classification of Diseases*, (WHO, 1992) are based largely on abnormal experiences and beliefs reported by patients, as well as agreement among a number of professionals as to what criteria should be used.

This can explain why the criteria change in revisions of the diagnostic manuals, for example homosexuality was included in earlier versions of the DSM.

Some argue that the difficulties met in trying to identify characteristics of “abnormality” reflect the fact that abnormal psychology is a social construction that has evolved over time without prescriptive and regulating definitions. It is also argued by some that the DSM-IV is gender and culturally biased.

Video criticism DSM: http://www.youtube.com/watch?v=hy79C0v8elE
make sure you think critically about the source!
• While the main purpose of the ICD is the classification of disorders, the DSM classification system has the additional purpose of assisting clinicians to diagnose a person's problem as a particular disorder.

• Clinicians can also use the available information on a disorder to decide on the most appropriate course of treatment.

• The DSM-I was published in 1952. The DSM-II and DSM-III caused a lot of debate amongst clinicians because there was a lack of consensus of the precise listing of disorders (Davison et al. 2004).

• The DSM-IV was published in 1994 and the DSM-IV-TR (text revision) was published in June 2000.
The DSM’s definition of mental disorders:

DSM-IV defines a mental disorder as:

‘... a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g. a painful symptom) or disability (i.e. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability or an important loss of freedom.’
The DSM

• DSM is based on the assumption that *symptoms can be grouped together* to form a specific mental disorder.

• DSM-IV-TR has around *400* disorders and covers clinical disorders, personality disorders and mental retardation.

• The DSM-III saw the first use of the *multi-axial classification system* – which is used to rate an individual on five separate dimensions (or axes).

• Most diagnosis will come from Axis I or Axis II or both. When a clinician works through the axes, they can paint an increasingly accurate picture of an individual clients condition.

• **Activity:** - Bullet point the 5 axes of the DSM
Multi-axial assessment with the DSM:

<table>
<thead>
<tr>
<th>Table 16.2</th>
<th>Multi-axial assessment in DSM-IV-TR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Axis 1:</strong> Major clinical syndromes – This includes all mental disorders such as schizophrenia, mood disorders, anxiety disorders and dissociative disorders.</td>
<td></td>
</tr>
<tr>
<td><strong>Axis 2:</strong> Personality disorders and mental retardation – This includes personality disorders, such as anti-social personality disorder, histrionic personality disorder and narcissistic personality disorder, as well as problems of intellectual development.</td>
<td></td>
</tr>
<tr>
<td><strong>Axis 3:</strong> General medical conditions – This includes medical problems that can lead to symptoms of an Axis 1 or an Axis 2 disorder (e.g. cirrhosis of the liver).</td>
<td></td>
</tr>
<tr>
<td><strong>Axis 4:</strong> Psychosocial and environmental problems – This includes events that have occurred during the past year, which again may have an impact on diagnosis (e.g. divorce or loss of job).</td>
<td></td>
</tr>
<tr>
<td><strong>Axis 5:</strong> Global Assessment of Functioning scale – This scale is used to rate an individual’s ability to function psychologically, socially and in terms of occupation on a scale of from 1 to 100. A score above 90 would indicate a person is in a very good state of mental functioning; a score of 70 would suggest some mild symptoms, whilst a score as low as 30 would suggest a number of very serious problems. A person who scores less than 10 on this scale would present a persistent danger of seriously hurting self or others and/or be unable to maintain minimal personal hygiene. (See also Psychology for AS-level, p. 121.)</td>
<td></td>
</tr>
</tbody>
</table>
The ICD

- The current edition – the ICD-10 was published in 1992 by the WHO – the ICD-11 is expected to be published in 2015

- Mental disorders were included in the ICD in 1952 (ICD-6)

- The main purpose of the ICD is to *make it easier to report health statistics*.

- The ICD enables universal agreement on the definitions of specific disorders or sets of syndromes – without these it would be very difficult for clinicians and researchers in different countries to communicate with each other.

- The ICD identifies 11 general categories of mental disorders.

http://www.who.int/classifications/apps/icd/icd10online/
<table>
<thead>
<tr>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>organic, including symptomatic, mental disorders (e.g. dementia in Alzheimer’s disease)</td>
</tr>
<tr>
<td>mental and behavioural disorders due to psychoactive substance abuse (e.g. those arising from alcohol abuse)</td>
</tr>
<tr>
<td>schizophrenia, schizotypal and delusional disorders</td>
</tr>
<tr>
<td>mood (affective) disorders (e.g. recurrent depressive disorder)</td>
</tr>
<tr>
<td>neurotic, stress-related and somatoform disorders (e.g. anxiety disorders)</td>
</tr>
<tr>
<td>behavioural syndromes associated with physiological disturbances and physical factors (e.g. anorexia nervosa)</td>
</tr>
<tr>
<td>disorders of adult personality and behaviour (e.g. paranoia)</td>
</tr>
<tr>
<td>mental retardation</td>
</tr>
<tr>
<td>disorders of psychological development (e.g. childhood autism)</td>
</tr>
<tr>
<td>behavioural emotional disorders with onset usually occurring in childhood or adolescence (e.g. conduct disorders)</td>
</tr>
<tr>
<td>mental disorders not specified elsewhere.</td>
</tr>
</tbody>
</table>
Reliability & Validity of Diagnosis

• Diagnosis means identifying a disease on the basis of symptoms and other signs.

• Diagnostic systems provide a set of templates which the clinician can use to compare information about disorders to the condition of a particular client.

• In this way, clinicians can use the same models for diagnosis. The effectiveness of diagnosis can be measured:

The Criteria For an Effective Diagnostic & Classification System...

• It should provide and exhaustive system that includes all types of abnormal behaviors

• The classificatory categories should be mutually exclusive, the boundaries between the categories should not be ‘fuzzy’ – it should be clear what disorder a client is suffering from

• For the DSM or ICD to be reliable, those using it should agree on whether a person should or should not be given a certain diagnosis. (SUNYB2, 1999)
Reliability & Validity of Diagnosis

- **Reliability**: this is high when different psychiatrists agree on a patient’s diagnosis when using the same diagnostic system. This is also known as *inter-rater* reliability.

- **Validity**: this is the extent to which the diagnosis is accurate. This is much more difficult to assess in mental disorders, for example because some symptoms may appear in different disorders. Also known as *content* validity.
The difficulty arises over whether classification can indeed be made effectively using classification systems.

For a classification system to be reliable, it should be possible for different clinicians, using the same system, to arrive at the same diagnosis for the same individual. (this is known as Inter rater reliability)

Although diagnostic systems now use more standardized assessment techniques and more specific diagnostic criteria, the classification systems are far from perfect.
Issues Surrounding the **Validity** of Diagnosis

- For a classification system to be **valid**, it should be able to classify a real pattern of symptoms which can then lead to an effective treatment.

- However, the classification system is **descriptive** and does not identify any specific causes for disorders.

- It is difficult to make a valid diagnosis for mental disorders because there are no objective physical signs of such disorders.

- Appropriate identification of diagnostic criteria is, to a large extent, influenced by psychiatrists. In some cases, psychiatrists have suggested alternative systems for diagnosis because they found that the existing ones were not reliable.
Issues Surrounding the Validity of Diagnosis

• For example, The Great Ormond Street Children’s Hospital in London has developed its own diagnostic system for children.

• Reliability of diagnosis using the DSM-IV system was 0.64 (64% agreement between raters), but this figure was artificially increased by the fact that most raters couldn’t make a diagnosis.

• When they used another system—the ICD-10—there was 0.36 inter rater reliability.

• With the Great Ormond Street System, raters achieved a reliability of 0.88.

• Some of the problems mentioned here are illustrated in Rosenhan’s classic study...
Classificatory systems and diagnosis: Questions to check your understanding

1) What's the difference between classification and diagnosis?
2) Identify three ways in which the DSM is similar to the ICD.
3) Identify three ways in which the DSM is different to the ICD.
4) What does DSM stand for?
5) When was the DSM first published?
6) Who publishes the ICD?
7) What edition of the ICD is being used now? And when will the next edition come out?
8) What edition of the DSM is being used now?
9) When was the ICD first published?
10) When were mental disorders first included in the ICD?
11) What is the main purpose of the ICD?
12) How many general categories of mental disorders does the ICD have?
13) How many axes are there on the DSM’s multiaxial assessment?
14) Which edition of the DSM saw the first use of the multiaxial assessment?
15) From which axis of the DSM is the GAF scale?
16) From which axes of the DSM will most diagnoses come from?
17) What is the purpose of diagnostic and classificatory systems?
18) What does TR stand for?
19) What is ‘inter-rater reliability’?
20) Identify and explain one type of validity.
**Evaluation**: Research into the reliability and validity of classification and diagnosis

- As seen earlier – reliability is the extent to which a classification system repeatedly produces the same outcome – and inter-rater reliability between mental health clinicians is vital.

- Psychiatric diagnosis is frequently regarded as being notoriously unreliable.

- Spitzer and Williams (1985) showed that psychiatrists only agree in diagnoses about 50% of the time.
Are the categories of mental illness real and meaningful?
We assume that categories are meaningful and real and exist, however they simply be perceptual categories we impose on the world in order to understand it better – i.e. – the categories are merely figments of scientists imaginations.

When description become diagnosis
It is important to consider they way terms are used – e.g. when using terms such as ‘anxiety or ‘depression’ – how confident can we be that people are talking about the same thing – these are merely descriptive words – but they may not explain a persons behavior.

Over inclusion and ‘patholologizing’ problems
The DSM keeps expanding, According to Comer (2004) 48% of Americans might qualify for a diagnosis on the DSM. – e.g. mood changes with the menstrual cycle should that really be seen as ‘Pre Menstrual Dysphoric Disorder’? This could be seen as ‘pathologizing’ what is normal behavior for women. The ICD is different to the DSM in its classification of sexual and eating disorders. This may be because sexual disorders appear more common in the US (Andrews et al. 1999).

Improved specificity?
In contrast with the criticisms of over inclusion – some clinicians have found that previous versions were not clear enough. An the DSM-IV-TR also contains an exclusion criteria which means that some diagnoses can be ruled out sometimes e.g. OCD symptoms when drunk.
Rosenhan wanted to test the reliability of psychiatric diagnoses. He conducted a field experiment where eight healthy people—five men and three women, all researchers—tried to gain admission to 12 different psychiatric hospitals. They complained that they had been hearing voices. The voices were unclear, unfamiliar, of the same sex and said single words like “empty” or “thud”. These were the only symptoms they reported. Seven of them were diagnosed as suffering from schizophrenia. After the individuals had been admitted to psychiatric wards, they all said they felt fine, and that they were no longer experiencing the symptoms.

It took an average of 19 days before they were discharged. For seven of them, the psychiatric classification of the time of discharge was “schizophrenia in remission”, implying that the schizophrenia might come back. Rosenhan was not content with the findings that normal people could be classified as abnormal, so he decided to investigate if abnormal individuals could be classified as normal. He told the staff at a psychiatric hospital that pseudo-patients would try to gain admittance. No pseudo-patients actually appeared, but 41 real patients were judged with great confidence to be pseudo-patients by at least one member of staff. Of these genuine patients, 19 were suspected of being frauds by one psychiatrist and another member of staff.

Rosenhan concluded that it was not possible to distinguish between sane and insane in psychiatric hospitals. His study demonstrates the lack of scientific evidence on which medical diagnoses can be made. It also raises the issue of treatments—that is, if they are always properly justified.
The impact of Rosenhan’s (1973) classic study: on being sane in insane places

- In the 1960s and 70s there was some concern among psychiatrists that they gave diagnosis of schizophrenia too readily.

- There was an even greater concern that many people where admitted to mental hospitals when they were not mentally ill, and once admitted they were detained and given treatment without their informed consent.

- Rosenhan’s key study supports this and led to the revision of the DSM.

- Rosenhan's study raises questions about the *content validity* of the DSM. *Content validity* being whether the DSM actually measures what it sets out to measure.
The impact of Rosenhan’s (1973) classic study: on being sane in insane places

• Validity is always going to be a problem for mental health workers – because unlike physical illnesses – the symptoms are not clear cut

• E.g. a person suffering from schizophrenia may or may not exhibit paranoia, they may or may not hear voices.

• Rosenhan’s research showed the low level of **validity** in the diagnosis of mental illness

• However – the diagnosis was high in inter rater **reliability** – since nearly all the ‘pseudo patients’ where given the diagnosis of schizophrenia.

• This shows that a diagnosis may be high in reliability and low in validity at the same time.

• Each edition of the DSM attempts to improve both the reliability and validity of diagnostic criteria

• The DSM-IV-TR is considered to reliable and valid for anxiety disorders and mood disorders, but the validity of the personality disorders axis has been questioned as well as the validity of the GAF scale (Moos et al. 2000) The revised DSM-V will be coming out next year
A method to improve reliability and validity: The Composite International Diagnostic Interview

- Andrews & Peters (1997) developed the CIDI to improve the reliability and validity of the DSM.

- This involves the client working through a structured interview either using a computer program or with an assistant.

- They answer a range of questions on psychological disorders and their responses are used to determine which questions from the pool are asked or omitted.

- If enough symptoms occur in patterns or clusters, then a diagnosis is made. All this is done by a computer program.
The Composite International Diagnostic Interview

A more acceptable method

- Patients feel more comfortable answering questions on a computer
- It gave them the opportunity to reveal symptoms they had never been asked before

High reliability and validity

- Research suggests that the CIDI is high in validity and reliability
Bias in the diagnosis of mental disorders

• In addition to Rosenhan’s (1973) study and the work of Andrews & Peters (1997) outlined above, social class (culture) ethnicity (culture) and gender also illustrate problems with the reliability and validity in relation to the diagnosis of mental disorders.

• This will be discussed next.